The Health of America's Southern Children

MATERNAL AND CHILD HEALTH DATA BOOK
SPECIAL EDITION

Children's Defense Fund

**Adolescent Pregnancy Prevention:
Prenatal Care and Child Health Campaign**

ABOUT CDF

The Children's Defense Fund (CDF) exists to provide a strong and effective voice for the children of America who cannot vote, lobby, or speak for themselves. We pay particular attention to the needs of poor, minority, and handicapped children. Our goal is to educate the nation about the needs of children and encourage preventive investment in children before they get sick, drop out of school, suffer family breakdown, or get into trouble.

CDF is a unique organization. CDF focuses on programs and policies that affect large numbers of children, rather than on helping families on a case-by-case basis. Our staff includes specialists in health, education, child welfare, mental health, child development, adolescent pregnancy prevention, and youth employment. CDF gathers data and disseminates information on key issues affecting children. We monitor the development and implementation of federal and state policies. We provide information, technical assistance, and support to a network of state and local child advocates. We pursue an annual legislative agenda in the United States Congress and litigate selected cases of major importance. CDF's major initiatives include our adolescent pregnancy prevention program and a prenatal care and child health campaign. CDF educates thousands of citizens annually about children's needs and responsible policy options for meeting those needs. CDF is a national organization with roots in communities across America. Although our main office is in Washington, D.C., we reach out to towns and cities across the country to monitor the effects of changes in national and state policies and to help people and organizations who are concerned with what happens to children. CDF maintains state offices in Minnesota, Ohio, and Texas. CDF has developed cooperative projects with groups in many states.

CDF is a private organization supported by foundations, corporate grants, and individual donations.

The Health of America's Southern Children

by
Aileen Whitfill
Joseph Liu
Kay Johnson

Children's Defense Fund

Southern Regional Maternal and Child Health Project Advisors

Florette Angel
West Virginia Youth Advocates

Doris Barnett
Alabama Department of Public Health

Mike Hudson
Children's Defense Fund-Texas

Jack Levine
Florida Center for Children and Youth

The Honorable Robert C. Scott
2nd Senatorial District, Virginia

Rims Barber
Mississippi Child Advocate

Carolyn Colvin
Maryland Department of Human Resources

Sandy Ingraham
Oklahoma Child Advocate

Linda Lowe
Georgia Legal Services

Pam Silberman
North Carolina Legal Services

Sarah E. Woolbert
South Carolina Department of Health & Environmental Control

Gordon Bonneyman and Pam White
Tennessee Legal Services

Copyright © 1989 by Children's Defense Fund.
All rights reserved.

ISBN: 0-938008-72-2

Acknowledgments

This book could not have been produced without the assistance and contributions of the following people:

- Sara Rosenbaum, CDF's Director of Programs and Policies, whose guidance was invaluable, and Jim Weill, General Counsel, who provided insights and thorough review.
- Dana Hughes, who developed the original outline for this book and provided consultation throughout its development.
- Melva Edmondson, who entered all of the numbers and typed and retyped pages of text.
- CDF's publications team: David Heffernan, Janis Johnston, and Donna Jablonski, who worked tirelessly to ensure the quality and accuracy of this book.
- CDF's research division: Paul Smith, who designed the computer programs that produced this book, and Janet Simons, who served as a resource on methodological questions.

We also wish to convey our deepest gratitude to Selma Taffel and Stephanie Ventura at the National Center for Health Statistics (NCHS), U.S. Department of Health and Human Services, for providing us with the vital statistics data for the nation and the states that appear throughout this book. Lois Fingerhut of NCHS was especially helpful in preparation and analysis of child mortality data.

The Ford Foundation, Hearst Foundation, and Mary Reynolds Babcock Foundation provide support for CDF's Southern Regional Maternal and Child Health Project. The Charles Revson Foundation provides support for all CDF publications.

Contents

Introduction vii
Melissa Manchester Harrell vii
Key Findings vii
Recommended Actions ix
About This Book x
The Ten Worst States in the Nation xii

Part I. Child and Family Poverty in the Southern Region 1

Part II. Southern Maternal, Infant, and Child Health 7

The Health of Mothers and Infants 9
Infant Mortality 9
Neonatal Mortality 11
Postneonatal Mortality 12
Risk of Death 14
Causes of Death Among Infants 16
Low-Birthweight Births 16
Prenatal Care 18
Early Prenatal Care 19
Late or No Prenatal Care 20
Births to Teens and Risk of Low-Birthweight Births 20

The Health of Children 23
Health Status 23
Health Services Utilization 24
Causes of Child Deaths 25

Infant Mortality in Southern Cities 27
City and County Statistics 27
Infant Mortality in Urban and Rural Areas of the South 27

Part III. Maternal and Child Health Programs 31

Aid to Families with Dependent Children (AFDC) 33

Medicaid 34

The Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program 37

Eligibility for EPSDT Services and Proportion of Children Receiving Care 38
Periodic Screening Services 40
Scope of Benefits 41

Title V Maternal and Child Health Block Grant Program 41

Community and Migrant Health Centers 42

Special Supplemental Food Program for Women, Infants, and Children (WIC) 43

Early Intervention Program 44

Recommendations 45
Aid to Families with Dependent Children 46
Medicaid 46
Expanding Eligibility 46

Easing the Application Process 47
Expansion of Benefits 47
EPSDT 48
Provider Reimbursement 48
Publicly Funded Health Care Providers 49
Health Manpower 49
Medical Malpractice 50
Nutrition 50
Immunization 50
Basic Health Insurance Reform 50

Part IV. State Fact Sheets, Ranking Tables, and Trend Tables 53

State Fact Sheets

Alabama 54
Arkansas 56
Delaware 58
District of Columbia 60
Florida 62
Georgia 64
Kentucky 66
Louisiana 68
Maryland 70
Mississippi 72
Missouri 74
North Carolina 76
Oklahoma 78
South Carolina 80
Tennessee 82
Texas 84
Virginia 86
West Virginia 88

Ranking Tables

Infant Mortality Rates 90
Neonatal Mortality Rates 91
Postneonatal Mortality Rates 92
Percentages of Infants Born at Low Birthweight 93
Percentages of Infants Born to Women Receiving Early Prenatal Care 94
Percentages of Infants Born to Women Receiving Late or No Prenatal Care 95
Percentages of Infants Born to Women Receiving Adequate Prenatal Care 96
Percentages of Infants Born to Women Receiving Inadequate Prenatal Care 97
Percentages of Infants Who Were Born to Women Under Age 20 98
Percentages of Births to Teens That Were Low Birthweight 99
Percentages of All Low-Birthweight Infants Who Were Born to Teens 100
Percentages of Infants Born to Teen Mothers Who Received Early Prenatal Care 101
Percentages of Infants Born to Teen Mothers Who Received Late or No Prenatal Care 102
States' AFDC Standard of Need as a Percent of the Federal Poverty Level 103
AFDC Maximum Payment Levels for Families With No Other Income as a Percent of Federal Poverty Level 103
AFDC Payment Level as a Percent of the AFDC Standard of Need 103
Percentage of Eligible Population Served by WIC Program 103
Estimated Average Child Poverty Rates 104

Trend Tables, 1978-1986

Infant Mortality Rates 105
Neonatal Mortality Rates 107
Postneonatal Mortality Rates 109
Percentages of Infants Born at Low Birthweight 111
Percentages of Infants Born to Women Receiving Early Prenatal Care 113
Percentages of Infants Born to Women Receiving Late or No Prenatal Care 115

Technical Notes 117

References 123

Introduction

Melissa Manchester Harrell

Melissa Harrell died because she was born poor and did not have a Medicaid card. She lived less than nine weeks. Mississippi's Medicaid eligibility process took nearly four months between application for and receipt of a Medicaid card. The only proof of Medicaid eligibility Melissa's social worker could offer was a letter—not a Medicaid card or number.

When Melissa ran a temperature, a symptom for concern among newborns, her mother unsuccessfully sought medical help. First, a private physician refused to accept Melissa's letter from her social worker and demanded cash. Then a pharmacist refused to fill a prescription written at a charity clinic without a Medicaid card. Since Melissa's mother could not pay for the prescribed medicine that day, she gave Melissa over-the-counter medicine to reduce the fever. Melissa's fever continued for two days. She was found dead on April 18, 1986.

This book, *The Health of America's Southern Children*, documents the progress made and the progress urgently needed now to improve maternal and child health care in the southern states, to save southern infants' and children's lives and health, and to save taxpayer dollars through preventive health care and improved family support.

More than 1,500 southern babies would be alive today if southern infant mortality rates in 1986 had been equal to those of the rest of the nation. The parents of more than 15,000 southern infants born at low birthweight might have been able to avoid their unnecessary pain and suffering if southern states had provided them health care commensurate with other regions. More than 31 million southern taxpayer dollars in neonatal intensive care costs and many additional dollars in special education costs might have been prevented had southern states ensured adequate health care for their poorest children.

Millions of new federal health dollars would flow into southern states, which have the highest infant mortality rates in the country, if all existing Medicaid options were adopted. Millions more new federal dollars would flow into southern states if the Southern and National Governors' Associations were to support congressional efforts to mandate and improve Medicaid coverage for an additional 4 million to 5 million mothers, babies, and children who have no source of health care. It is unconscionable that every year we deny health care coverage to at least 9 million uninsured mothers and babies while the unnecessary deaths of innocent babies and greater remedial costs continue to add up.

Key Findings

The South has made important progress on some economic and health measures. The gaps between the South and the nation on a number of key child measures have narrowed. The Southern Regional Project on Infant Mortality of

the Southern Governors' Association and the Southern Legislative Conference has been active in upgrading Medicaid and public health care services for pregnant women and children. We applaud these beginning positive steps. But they are no cause for complacency.

1. The South still lags badly behind the nation on most key child measures. Southern children are still more likely than other American children to die, to be in poorer health at all ages, to become teen parents, and to lack access to adequate health and economic supports. The 1987 southern child poverty rate of 23.4 percent was one-sixth higher than that of the nation as a whole. While a little over one-third of the nation's children live in the South, more than four out of 10 poor children live there.

2. The gap between southern child poverty rates and those in the rest of the nation closed between 1969 and 1987 primarily because of the precipitous increases in childhood poverty in non-southern regions. During this period, child poverty rose 55 percent in the Northeast, 73 percent in the Midwest, and 46 percent in the West.

The 1987 southern child poverty rate of 23.4 percent was virtually identical to the 1969 rate of 23.5 percent. The major 16 percent decrease in southern child poverty that occurred between 1969 and 1979 was wiped out between 1979 and 1987.

Sadly, the nation is becoming more like the South rather than the South becoming more like the nation in protecting its children from poverty and disease.

3. A significant reason the South lags behind the country on so many indicators is its higher proportion of poor black children compared with other regions. Nearly 60 percent of all poor black American children lived in the southern region in 1986. Their poverty rate was 45.9, meaning that nearly one in two black children in the South was poor.

Because blacks make up a significantly larger proportion of the population in the South than they do in other regions, the southern rates for all races combined are worse than overall rates in other regions.

4. In 1986, eight of the 10 worst states on infant mortality were southern. Although the South's black infant mortality rate was better than the national average, white infant mortality was worse than for the nation as a whole. A white infant born in Kansas City, Missouri, was more likely to die than an infant born in Hong Kong, Singapore, or Greece.

5. The southern infant mortality problem is urban as well as rural. In 16 of the 18 southern states, the infant mortality rate for all races in urban areas was equal to or greater than that in rural areas. In 12 southern states the risk of death among white urban infants was greater than that of rural infants. For black infants, the risk of death was higher among rural infants in only four of 10 states with reliable black rates.

6. Nine of the 10 states in the nation with the worst low-birthweight rates were southern. Of those states, six also were among the 10 worst on mental retardation rates for school children. Six of the 10 worst states for white low birthweight were southern. Three-quarters of all deaths in the first month of life result from low birthweight. Low-birthweight birth dramatically increases an infant's risk of death or disability, including learning disability or mental retardation.

7. The Surgeon General of the United States established 1990 Objectives for the Nation's Health, including the objective that 90 percent of all women should receive prenatal care in the first three months of pregnancy. Only 72.8 percent of all southern infants were born to mothers who received early care—a lower proportion than in any other region. Nine southern states had increases between 1978 and 1986 in the percentage of infants born to women who received late or no care. The proportion of Texas births with late or no care was nearly

twice as high as the nation's. In 1986 the white late-or-no-care rate was nearly one-quarter worse than that of the nation.

8. Teenage childbearing is a particular problem in the South. In 1985 the southern region accounted for 45.8 percent of the nation's teen births, but only 36.5 percent of all births. Babies born to teen mothers face higher risk of low birthweight and infant mortality. Of the 10 states with the highest proportion of low-birthweight births among teenage mothers, all were southern.

9. Southern children's poor health status persists after infancy. Southern children in all age groups were less likely to be in excellent health, more likely to die, and more likely to experience bed days and missed school due to acute or chronic conditions than children in the nation as a whole.

10. Despite greater child poverty, infant mortality, low birthweight, and health problems among older children, the South's safety net for children remains very weak.

- The AFDC payment levels in the 18 southern states were less than 50 percent of the federal poverty level as of January 1989. The regional median was 30.7 percent. Alabama's monthly payment of $118 and Mississippi's $120 per month for a family of three, about 14 percent of the federal poverty level, were the lowest in the region and in the country.
- Only eight southern states (Florida, Kentucky, Maryland, North Carolina, Mississippi, South Carolina, Texas, and West Virginia) have used their option to extend Medicaid coverage to all infants and pregnant women with family incomes above 100 percent of poverty as of June 1989. Of these, only three (Maryland, Mississippi, and South Carolina) have set the income standard at the maximum level of 185 percent of the poverty level.
- Only 32.9 per 100 eligible southern children received a screening examination through the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program in 1988. While slightly better than the shameful national average, 10 of the southern states (Arkansas, Delaware, the District of Columbia, Kentucky, Maryland, Mississippi, Missouri, Oklahoma, Tennessee, and Texas) had screening rates below the national average for children under six.
- Seven southern states had screening ratios below 10 per 100 for older children in 1988. Kentucky's EPSDT program performed just 1,600 screens among more than 108,000 eligible children between ages six and 20. Delaware screened just 253.
- There are 247 health centers in the South but 831 unserved areas in need of medical providers.
- Only 83 health center infant mortality initiatives were funded in the South, leaving 164 centers in the region without needed support.
- The percentage of eligibles served by the Special Supplemental Food Program for Women, Infants, and Children (WIC) in the southern states averaged 49 percent per state, from 67 percent in Mississippi to 42 percent in Oklahoma as of August 1988. Only two southern states supplemented WIC funding.

Recommended Actions

The historic tendency of some in the South to excuse their region—consciously or unconsciously—as a type of Third World country, impoverished and hopelessly behind, is no longer acceptable. The South now has the capacity to catch up with the nation in the future in caring for its children. This will require special leadership, political will, and a moral urgency about preventing the needless deaths of babies like Melissa.

The South can make significant progress by implementing well all of the existing federal health and nutrition programs designed to prevent and remedy infant mortality, low birthweight, and treatable health problems among older children. The South can do it by encouraging, rather than discouraging, additional Medicaid expansions so that more poor mothers and babies can get desperately needed health care. The South can do it by:

- Implementing, in all states, all possible Medicaid maternal and child health eligibility, administrative, and benefit reforms.
- Securing greater numbers of medical and dental providers to participate in Medicaid and serve in publicly funded health clinics. Providers need reasonable administrative procedures and decent reimbursement as incentives, but they also should make a commitment to low-income families.
- Developing and implementing, in all states, simpler Medicaid application procedures and plans to keep children enrolled. Applications should be easy to obtain, simple to complete, and be processed quickly. States should design programs with continuity of care in mind.
- Urging full federal funding and providing supplemental state funding for the Community and Migrant Health Centers and the Title V Maternal and Child Health Block Grant programs sufficient to permit the development of health services in all medically underserved areas.
- Having all states participate, beyond the planning stage, in the early intervention program for infants and toddlers (enacted as part of the Education for All Handicapped Children Act), to ensure that children younger than three receive services to prevent and ameliorate developmental problems. Particular attention needs to be given to serving at-risk children.
- Providing supplemental funding for WIC to ensure that its benefits are received by low-income and nutritionally at-risk women, infants, and children.
- Making childhood immunization a priority. Immunization programs should identify and immunize more infants and toddlers to ensure that 90 percent of all two-year-olds are appropriately immunized.
- Building linkages between programs. Coordinated programs stretch resources and are a more humane approach to serving families.

About This Book

The Health of America's Southern Children is the first publication of the Children's Defense Fund's new Southern Regional Maternal and Child Health (MCH) Project. The project's focus will be on Southern Governors' Association states: Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. We will regularly analyze, monitor, and report on the conditions of southern children's health status and provide public education, training, technical assistance, and advocacy support to officials and community members with the goal of improving the health of low-income women and children in the South.

This book brings together a great wealth of information about maternal and child health programs, as well as key health status and health care utilization statistics. Part I provides an overview of the region, with a focus on child and family poverty.

Part II reviews statistics on maternal, infant, and child health status and utilization of health care. Key maternal and child health indicators such as infant mortality, low birthweight, prenatal care use, childhood mortality, and preventive child health service use are reviewed. This section compares the southern region to other regions and to the nation, as well as southern states to one another. In addition, infant mortality statistics for 16 major southern regional metropolitan areas are presented.

Part III presents data and information on the performance and scope of key programs that make health care available to low-income children including: Medicaid; the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program; the Special Supplemental Food Program for Women, Infants, and Children (WIC); Aid to Families with Dependent Children (AFDC); Community and Migrant Health Centers; Title V Maternal and Child Health Block Grant programs; and programs furnishing early intervention to infants and toddlers under Part H of the Education for All Handicapped Children Act.

Part IV includes three sets of tables that reflect states' performance in improving maternal and child health indicators and in developing adequate maternal and child health programs. First, state-by-state fact sheets provide a summary of health and program statistics. These fact sheets could be copied by advocates and policy makers for quick reference. Next is a series of tables ranking states within the region on key indicators such as infant mortality, low birthweight, prenatal care use, and teenage childbearing. A third set of state tables presents trends from 1978 to 1986 for each state and the nation. Trend tables also show the rate of progress for the eight-year period.

Technical Notes are provided at the end of the book. This section generally describes sources of data; in some cases it presents methods of calculation, and, where applicable, reports on limitations of data.

The Ten Worst States in the Nation On:

Infant Mortality, All Races
District of Columbia
South Dakota
Alabama
South Carolina
Georgia
Mississippi
Illinois
Louisiana
Maryland
North Carolina

Infant Mortality, Black
District of Columbia
Michigan
Illinois
Indiana
Alabama
Pennsylvania
Tennessee
Missouri
New Jersey
Massachusetts

Neonatal Mortality, All Races
District of Columbia
Alabama
Delaware
South Carolina
Georgia
Maryland
Illinois
Michigan
Louisiana
Mississippi

Postneonatal Mortality, All Races
South Dakota
Wyoming
District of Columbia
Oregon
Mississippi
Arkansas
Idaho
Alaska
South Carolina
Washington State

Low Birthweight, All Races
District of Columbia
Mississippi
Louisiana
South Carolina
Georgia
Alabama
Tennessee
North Carolina
Colorado
Maryland

Low Birthweight, Black
Colorado
District of Columbia
Illinois
Nevada
Michigan
Pennsylvania
Minnesota
Connecticut
Louisiana
Florida

Babies Born to Women Receiving Early Prenatal Care, All Races
New Mexico
District of Columbia
Texas
South Carolina
Florida
Arkansas
West Virginia
Oklahoma
Arizona
New York

Babies Born to Women Receiving Early Prenatal Care, Black
Florida
New York
New Mexico
Pennsylvania
Arkansas
South Carolina
West Virginia
Montana
District of Columbia
Texas

Babies Born to Women Receiving Adequate Prenatal Care, All Races
District of Columbia
New Mexico
South Carolina
Texas
New York
Vermont
Arkansas
West Virginia
Florida
Arizona

Babies Born to Women Receiving Late or No Prenatal Care, All Races
New Mexico
Texas
District of Columbia
New York
Florida
Arizona
South Carolina
Oklahoma
Arkansas
West Virginia

Babies Born to Women Receiving Late or No Prenatal Care, Black
New York
Pennsylvania
New Mexico
West Virginia
Florida
Texas
Oklahoma
Nevada
South Carolina
District of Columbia

Babies Born to Women Receiving Inadequate Prenatal Care, All Races
District of Columbia
Texas
New Mexico
New York
Florida
South Carolina
Arizona
Oklahoma
Arkansas
Nevada

Births to Teens, All Races
Mississippi
Arkansas
Kentucky
Alabama
West Virginia
District of Columbia
Georgia
Tennessee
Louisiana
South Carolina

Births to Teens, White
West Virginia
Kentucky
Arkansas
New Mexico
Tennessee
Mississippi
Texas
Oklahoma
Alabama
Georgia

Births to Teens, Black
Arkansas
Wisconsin
Mississippi
Indiana
Illinois
Missouri
Delaware
Tennessee
Kentucky
Alabama

Note: Southern states in italics.

PART I

Child and Family Poverty in the Southern Region

Family poverty affects children's health status in a number of ways. Poor families are less likely to have the money to secure decent housing. Poor children thus may be exposed to a greater risk of injuries related to accidents, poisoning, or other environmental hazards. Lack of adequate nutrition is another problem commonly associated with poverty. All of these circumstances may lead to health impairments or reduced health status for children.

In a more direct sense, family poverty affects child health by reducing access to health care services. Poor families, including working poor families, are far less likely to have health care insurance, public or private, and generally lack the means to pay for care out-of-pocket. While regional statistics are not available for families and children specifically, data indicate that employed persons in the South are less likely than employed persons in any other region to be covered by employer- or union-provided health insurance. Among poor employed persons in the southern region, only 23.2 percent had employer-based health care coverage in 1986. In addition, employed persons in the South are considerably less likely than workers in other regions to have the full cost of coverage paid for by their employer or union (Table 1.1).

TABLE 1.1

Health Insurance Coverage Among Civilian Wage and Salary Workers, by Region, 1986

	South[1]	Northeast	Midwest	West	U.S.
Percent of all workers with union- or employer-sponsored health insurance	58.8%	64.2%	59.2%	59.1%	60.1%
Percent of insured workers whose union or employer paid all group health plan costs	34.3%	46.9%	43.6%	41.6%	40.8%
Percent of all workers whose union or employer paid all group health plan costs	20.2%	30.1%	25.8%	24.6%	24.6%

[1]Southern regional data exclude Missouri. Missouri is included in the Midwest region.

SOURCE: Bureau of the Census.

The southern region for decades has had distinct demographic features. One of the most dominant has been high poverty rates. The more than 5 million poor children younger than 18 living in the South represent a disproportionately large percentage of America's poor children.

- Children in the region represented 34.7 percent of the total U.S. population of children in 1987, but 40.6 percent of all poor children. In that year, 32.6 percent

TABLE 1.2

Poverty Rates for Children[1] Younger Than 18, by Family Composition, Race, and Region, 1987

	South[2]			Northeast	Midwest	West	U.S.
	No. of Children	No. of Poor Children	Poverty Rate	Poverty Rate	Poverty Rate	Poverty Rate	Poverty Rate
All Families	(thousands)						
All races	21,602	5,052	23.4%	16.9%	18.4%	18.9%	20.0%
White	15,729	2,465	15.7%	13.5%	13.6%	16.9%	15.0%
Black	5,470	2,511	45.9%	39.4%	51.5%	35.4%	45.1%
Female-Headed Families							
All races	5,141	2,928	57.0%	54.3%	56.7%	47.8%	54.7%
White	2,334	1,028	44.0%	49.5%	46.0%	44.6%	45.8%
Black	2,727	1,865	68.4%	63.6%	74.8%	59.3%	68.3%

[1]Data are for "related" children in households. See Technical Notes for definition.

[2]Southern regional data exclude Missouri. Missouri is included in the Midwest region.

SOURCE: Bureau of the Census.

of all poor white children and 58.4 percent of all poor black children lived in the South (Figure 1.1).

The South's childhood poverty rates are among the highest of all regions in the country.

- In 1987 the southern regional child poverty rate for all races (23.4 percent) was higher than any other region of the country and higher than the national average (20.0 percent) (Table 1.2, Figure 1.2).
- In that year, only white children in the western region were more likely to be poor than southern white children.
- Nearly one of every two black children in the South lives in a family with below-poverty income. In 1987 black child poverty rates were higher in only one other region, the Midwest.

A variety of factors account for high child and family poverty rates in the southern region. For example, as for the nation as a whole, families headed by a single female, and children living in those families, are more likely to be poor.

- In 1987, 54.7 percent of all children in female-headed families in the United States had incomes below poverty, compared with 57.0 percent of southern children in such families (Table 1.2).
- Children living in female-headed households in the South were more likely than similar children in any other region to be poor.
- While white southern children in female-headed families were less likely to be poor than their counterparts living in other regions, they accounted for more than 40 percent of all poor white children in the South in 1987.

TABLE 1.3

Poverty Rates for Children[1] Younger Than Six, by Family Composition, Race, and Region, 1987

	South[2]			Northeast	Midwest	West	U.S.
	No. of Children	No. of Poor Children	Poverty Rate	Poverty Rate	Poverty Rate	Poverty Rate	Poverty Rate
All Families	(thousands)						
All races	7,156	1,819	25.4%	19.7%	21.2%	21.1%	22.3%
White	5,222	913	17.5%	16.2%	16.2%	18.7%	17.2%
Black	1,801	878	48.8%	44.3%	53.4%	42.1%	48.4%
Female-Headed Families							
All races	1,538	993	64.6%	69.8%	68.3%	60.8%	65.7%
White	643	368	57.3%	68.7%	59.7%	58.4%	60.8%
Black	876	614	70.1%	70.6%	80.4%	66.1%	71.9%

[1]Data are for "related" children in households. See Technical Notes for definition.

[2]Southern regional data exclude Missouri. Missouri is included in the Midwest region.

SOURCE: Bureau of the Census.

- Black southern children in female-headed households were as likely to be poor as their counterparts nationally. More than two-thirds (68.4 percent) of black southern children in female-headed families were poor in 1987.

Measured against southern children in all age groups, the youngest southern children are most likely to live in poor families.

- In 1987, 25.4 percent of southern children younger than six were poor, compared with the region's overall child poverty rate of 23.4 percent. Comparisons by race reveal similar disparities (Tables 1.2 and 1.3).
- Among children younger than six in female-headed households, 64.6 percent were poor, compared with 57 percent of all children in the region living in female-headed households.
- Among white children in female-headed families the difference in poverty rates between all children and children younger than six was considerable (49.5 percent vs. 57.3 percent, respectively).
- A startling 70 percent of southern black children younger than six in female-headed families were poor in 1987.

This picture of southern children reveals an extremely poor population, with childhood poverty rates as high as or higher than those of other parts of the country. Both black and white southern children experience a high risk of poverty, leaving them at elevated risk of health and other problems. However, the South traditionally has not addressed the problems of childhood poverty. With the economic base of the South expanding and the tone of southern politics changing, there is an opportunity for the next generation of southern children to grow up without the debilitating effects of poverty.

FIGURE 1.1

Poor Southern Children as a Percent of Poor Children Nationally, by Race, 1987

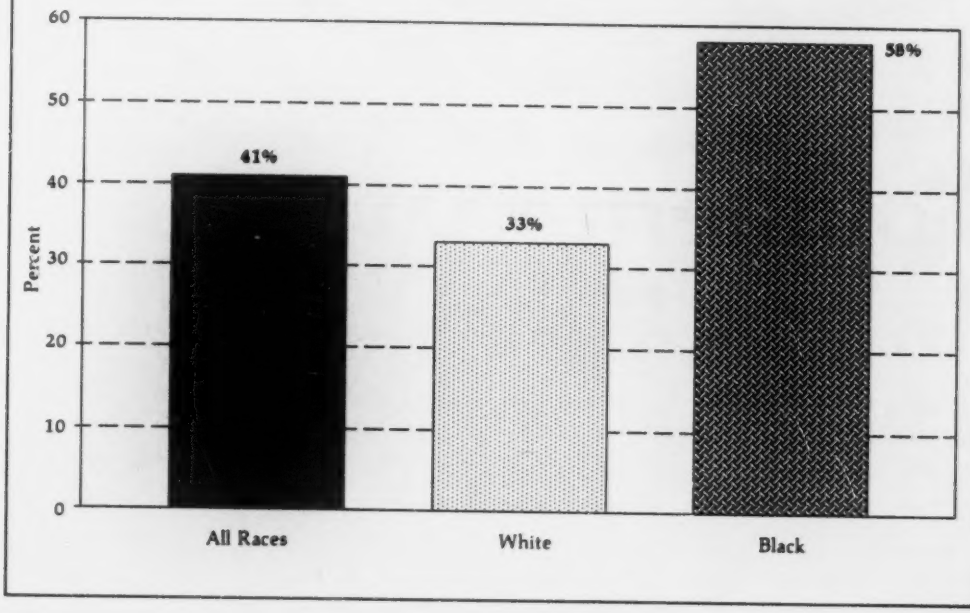
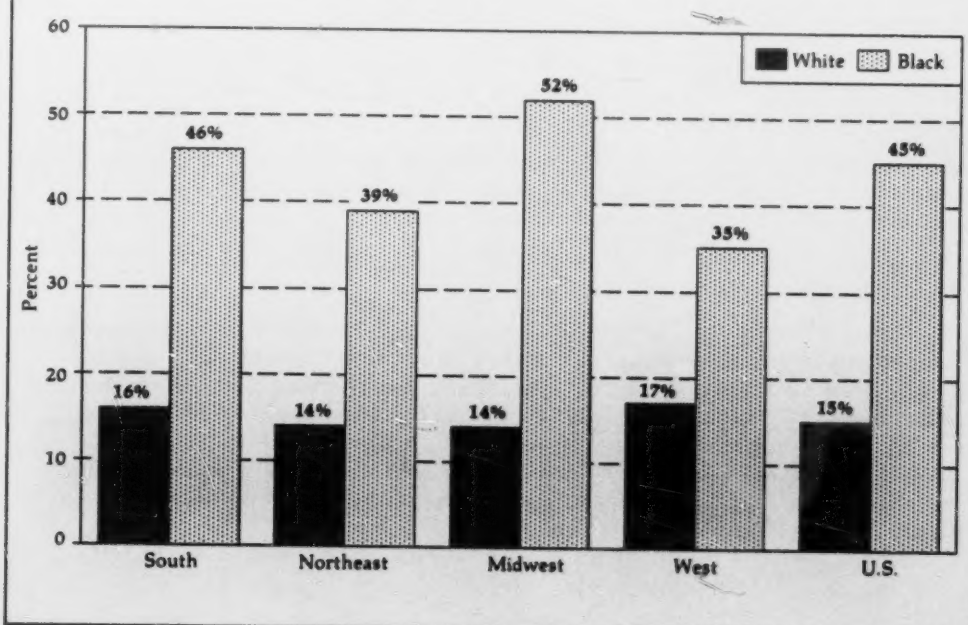


FIGURE 1.2

Child Poverty Rates by Race and Region, 1987



PART II

Southern Maternal, Infant, and Child Health

PART II

Southern Maternal, Infant, and Child Health

The Health of Mothers and Infants

Infant Mortality

In 1986 (the most recent year for which final national statistics are available), 3,756,547 infants were born in the United States and 38,891 died before reaching their first birthday. The infant mortality rate for the nation was 10.4 deaths per 1,000 live births.

In the southern region, 1,372,250 infants were born and 15,207 died in 1986 (Figures 2.1 and 2.2). Although the southern states were home to about 36 percent of the nation's population in 1986, 36.5 percent of all births and 39.1 percent of all infant deaths occurred in the South (Figure 2.3). The infant mortality rate for the region was 11.1 deaths per 1,000 live births, which was higher than any other region of the country (Table 2.1).

All states in the region showed some progress between 1978 and 1986 in reducing mortality for infants. The nation's overall infant mortality rate dropped 25 percent during that period. Ten of the 18 southern states showed a decline of 25 percent or more (Table 4.15a). Between 1978 and 1986, 10 states also had progress that was equal to or greater than the national decline in black infant mortality (22 percent). For all nonwhite infants, the trend was similar (Table 4.15c and 4.15d). Despite these advances, considerable problems persist:

- In 1986, 14 of the 18 southern states still had infant mortality rates at or above the national average. Only Arkansas, Kentucky, Texas, and West Virginia had infant mortality rates below the national average (Table 4.1a).
- Between 1978 and 1986, nine of 17 states whose rates could be calculated showed progress in reducing white infant mortality that was equal to or greater than national progress (Table 4.15b). Despite this progress, southern white infant mortality rates are high compared with the nation. In 1986 white infant mortality rates were at or above the national average in 13 of 17 southern states. Only Florida, Louisiana, Tennessee, and Texas were below the national average (Table 4.1b). The white infant mortality rate for the region in 1986 was 9.1 deaths per 1,000 live births. This rate was higher than the national average (8.9) and was exceeded by only the Midwest region (9.2) (Table 2.1).

In 1986 the black infant mortality rate in the southern states was 17.7 deaths per 1,000 live births, lower than the national rate for blacks of 18.0. But, because of a higher concentration of the black population in the South, a black infant mortality *rate* of 17.7, even though it is lower than the national rate, means that black infants are dying at high *numbers* in the region.

- In 1986 white infants in the South accounted for 74 percent (versus 79 percent nationwide) of births but 60 percent of infant deaths. Black infants accounted for 24 percent of births (versus 17 percent nationally) but 40 percent of infant deaths.
- Even though as a region the South had a lower black infant mortality rate than the nation, eight of 17 southern states with reliable figures had black infant mortality rates that were as bad as or worse than the national rate (Table 4.1c).

FIGURE 2.1

Births, by Race and Region, 1986

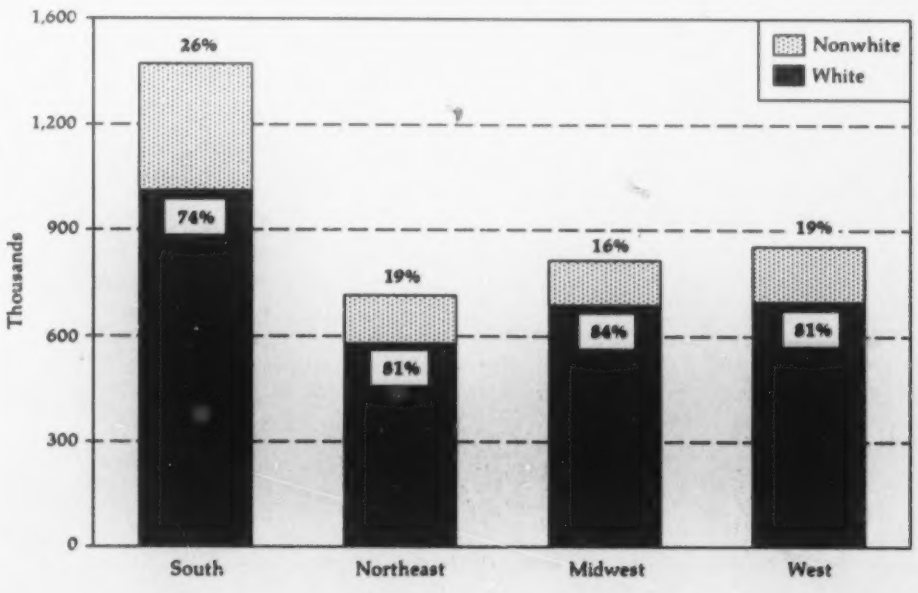


FIGURE 2.2

Infant Deaths, by Race and Region, 1986

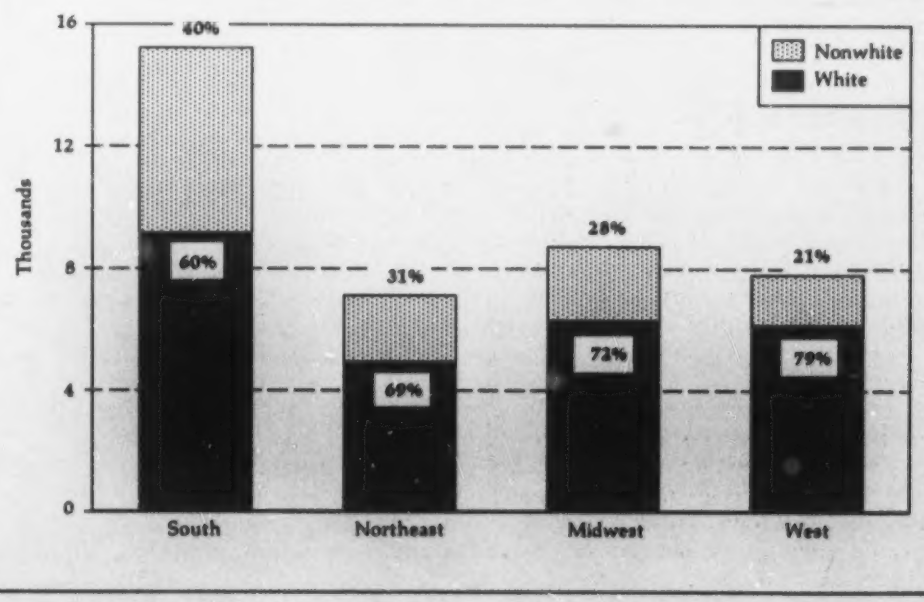
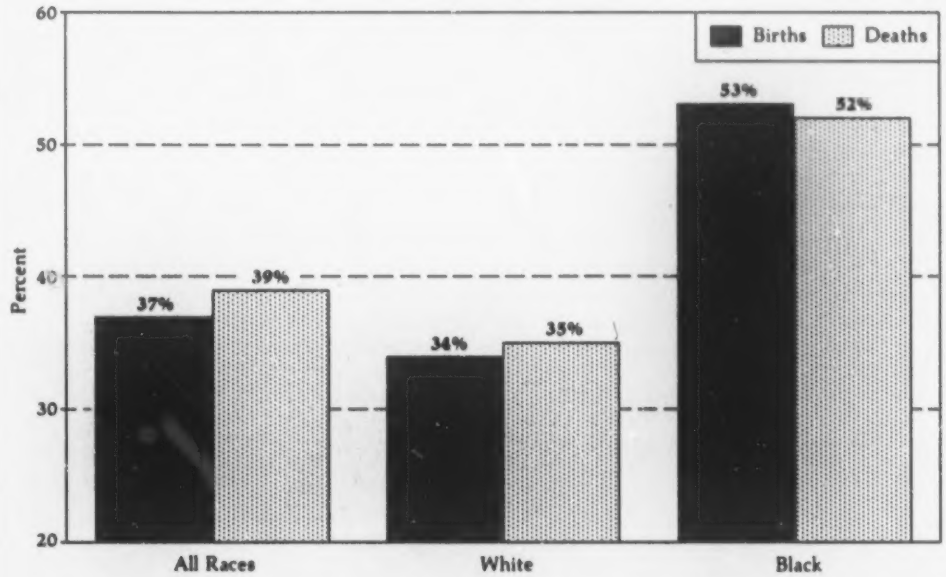


FIGURE 2.3

Southern Births and Infant Deaths as a Percent of the National Total, by Race, 1986



In sum, both the black and white infant mortality rates in the South must be reduced. The rate of white infant deaths is higher than that of the nation as a whole. But southern black infants are twice as likely to die as their white counterparts. And because blacks make up a larger portion of the southern population than is true nationwide, black infant deaths account for a disproportionate and intolerable number of all southern infant deaths.

Neonatal Mortality

Neonatal deaths (those occurring during the first 27 days of life) account for approximately two-thirds of all infant deaths each year. Neonatal mortality is caused primarily by congenital anomalies (commonly called birth defects), low birthweight and prematurity, respiratory distress syndrome (generally as a complication of low birthweight and prematurity), maternal complications at the time of labor and delivery, or birth hypoxia and asphyxia. These causes account for about 60 percent of all neonatal deaths.

Given these causes, interventions to reduce neonatal mortality are focused primarily on the prenatal, labor and delivery, and immediate postpartum periods. Of particular importance in reducing neonatal mortality is the development of well-organized perinatal care systems.

Such systems, sometimes called regionalized perinatal care systems, work to ensure that each pregnant woman receives, throughout pregnancy, care in a setting which is appropriate to her needs, and that networks are in place to transport pregnant women, mothers, and infants, when appropriate, to facilities with greater capacity to provide intensive care. Prenatal care appropriate to a

pregnant woman's level of medical or social risk is important to ensuring the health of the mother and the best possible start for a child. The survival rates of very-low-birthweight babies (born weighing less than 3.5 pounds or 1,500 grams) are better among those born in hospitals with fully equipped neonatal intensive care units (known as Level III or tertiary care centers) than among those born in other hospitals. The absence of strong perinatal care systems linking pregnant women and infants to appropriate prenatal, labor and delivery, and postpartum care when needed is a problem in every region of the country—especially in regions, such as the South, that have high concentrations of families living in rural areas and that don't have the critical population numbers needed to support adequate numbers of obstetrical providers, Level III hospitals, and adequate transportation systems.

In 1986 the neonatal mortality rate for the nation was 6.7 deaths per 1,000 live births. The rate for infants in the southern region was 7.2, higher than that of any other region. The western states had the lowest neonatal mortality rate (5.5) (Table 2.1). Neonatal mortality declined by 30 percent for the nation between 1978 and 1986. Nine southern states made equivalent progress (Table 4.16a). Yet, because southern states have had such poor infant death records, 13 states still had overall neonatal mortality rates greater than the national average for 1986.

- For example, despite a 20 percent decline in neonatal mortality between 1978 and 1986, the rate for the District of Columbia remains nearly 2.5 times the national average. In Alabama, Delaware, and South Carolina neonatal mortality rates remained near 9.0 in 1986.
- In 1986 the white neonatal mortality rate of 6.0 deaths per 1,000 in the southern region was higher than the national rate of 5.8 deaths and equal to or higher than that of all other regions.
- In that year black neonatal mortality in the South at 11.5 was lower than the national rate of 11.7. Only the western states had a lower black neonatal mortality rate, 9.6 deaths per 1,000. In 1986, 14 of 17 states still had white neonatal rates (Table 4.2b) and seven of 17 states had black neonatal rates above the national rates (Table 4.2c).

Postneonatal Mortality

Postneonatal mortality (deaths from 28 days to one year of life) reflects a somewhat different set of health risks to infants. The five leading causes of postneonatal mortality—accounting for approximately 60 percent of all deaths after the first month of life—are Sudden Infant Death Syndrome (SIDS), congenital anomalies, accidents, pneumonia and influenza, and infections classified as septicemia. Many of these health risks to older infants can be lessened through the provision of comprehensive primary and preventive health care during the first year of life.

The postneonatal mortality rate for the nation was 3.6 per 1,000 in 1986, while the rate for the southern states was 3.8, higher than all other regions. In the southern states the white rate was 3.1, the same as the national rate, while the black rate was 6.2 per 1,000, slightly lower than 6.3 for the nation (Table 2.1).

- Between 1978 and 1986, the nation showed a decline in postneonatal mortality of only 16 percent. Most southern states had a somewhat greater decline than the national average. They had declines of almost 30 percent. However, Maryland, Missouri, and Tennessee had very small declines over the nine-year period, ranging from 2.5 to 5.0 percent (Table 4.17a).
- Nationally, black postneonatal mortality rates improved by 17 percent. Among the southern states, 10 had greater declines. However, these gains may not be

TABLE 2.1

Births, Infant Deaths, and Infant Mortality Rates[1], by Region and Race, 1986

	South	Northeast	Midwest	West	U.S.
Total Births					
All races	1,372,250	715,036	814,709	854,552	3,756,547
White	1,010,589	577,474	687,079	695,297	2,970,439
Black	331,731	117,918	108,767	62,805	621,221
Nonwhite	361,661	137,562	127,630	159,255	786,108
Infant Deaths					
All races	15,207	7,127	8,729	7,828	38,891
White	9,165	4,947	6,299	6,153	26,564
Black	5,869	2,101	2,234	1,000	11,204
Nonwhite	6,042	2,180	2,430	1,675	12,327
Infant Mortality Rate					
All races	11.1	10.0	10.7	9.2	10.4
White	9.1	8.6	9.2	8.8	8.9
Black	17.7	17.8	20.5	15.9	18.0
Nonwhite	16.7	15.8	19.0	10.5	15.7
Neonatal Mortality Rate					
All races	7.2	6.8	7.0	5.5	6.7
White	6.0	5.9	6.0	5.4	5.8
Black	11.5	11.8	13.7	9.6	11.7
Nonwhite	10.8	10.5	12.5	6.3	10.1
Postneonatal Mortality Rate					
All races	3.8	3.2	3.7	3.6	3.6
White	3.1	2.6	3.2	3.5	3.1
Black	6.2	6.0	6.9	6.3	6.3
Nonwhite	5.9	5.4	6.6	4.2	5.6

[1]Deaths per 1,000 live births.

SOURCE: National Center for Health Statistics.

holding. Between 1985 and 1986, progress in reducing black postneonatal mortality slipped in nine southern states (4.17c).

- Despite progress, even greater reductions in postneonatal mortality are needed in the region. In 1986, 14 of the 17 southern states with reliable statistics had postneonatal mortality rates that were equal to or greater than the national average of 3.6 per 1,000. Only Texas, Maryland, and Kentucky had lower rates, of 3.5 per 1,000. Moreover, those states with the greatest improvements since 1978 (the District of Columbia, South Carolina, and Mississippi) reported three of the four highest postneonatal rates in 1986 (Table 4.3a).
- Some states show a dramatic need for interventions to reduce deaths after the first month of life. For example, in Oklahoma the white postneonatal mortality rate has declined so slowly that the rate of 4.1 per 1,000 places the state eighth worst in the nation and the highest of all southern states. In Maryland and Missouri, improvements have been so spotty that virtually no progress was made between 1978 and 1986. By 1986 eight of the 16 states with reliable white postneonatal mortality rates remained above the national average.

Risk of Death

There are significant differences between the South and other regions in the risk of infant death. Statistics from the National Infant Mortality Surveillance (NIMS) project provide a context for examining regional variation in infant mortality and low-birthweight births. The NIMS project was a special study conducted by the U.S. Department of Health and Human Services (DHHS) that linked birth certificates with infant death certificates. From this linkage system (which is scheduled to be used by all states by 1990) a wealth of information can be gleaned about infants who die. From this information, researchers calculate a "risk" of infant mortality. Different from the "rate," the infant mortality risk provides more precise information on the number of infants who die before their first birthday by linking the birth and death records of infants born alive in 1980. In contrast, the rate is based on total number of infant births and deaths in a given year (see Technical Notes). Like the rate, NIMS infant mortality risk is expressed per 1,000 live births. While the NIMS data are available for 1980 only, they provide valuable details about the risk of infant death.

In 1980 the infant mortality risk for the nation was 11.0 deaths per 1,000 live births (Table 2.2). Significant differences were found between the South and other regions (the NIMS southern region does not include Missouri; see Technical Notes for regional definitions). As with the 1986 rates discussed earlier, the 1980 NIMS data indicate that for all races and for whites, but not for blacks, the infant mortality risk was highest in the South.

TABLE 2.2

Infant, Neonatal, and Postneonatal Mortality Risk, by Race and Region, 1980[1]

	South[2]	Northeast	Midwest	West	U.S.
Infant Mortality Risk[3]					
All races	12.1	10.4	10.8	9.9	11.0
White	9.8	8.8	9.2	9.1	9.3
Black	18.6	19.0	20.7	16.5	18.9
Neonatal Mortality Risk[3]					
All races	8.1	7.2	7.2	6.3	7.3
White	6.6	6.2	6.2	5.8	6.2
Black	12.4	12.5	13.7	10.7	12.5
Postneonatal Mortality Risk[4]					
All races	4.0	3.2	3.6	3.6	3.7
White	3.2	2.6	3.0	3.3	3.1
Black	6.2	6.6	7.1	5.9	6.5

[1]Data are for the 1980 birth cohort. See Technical Notes for definitions.

[2]Southern regional data exclude Missouri. Missouri is included in the Midwest region.

[3]Infant and neonatal mortality risk represent deaths per 1,000 infants born in the 1980 birth cohort; that is, of the infants born in 1980 how many died (before their first birthday or before 28 days of life, respectively) regardless of whether the death occurred in 1980 (see Technical Notes for further explanation).

[4]Postneonatal Mortality Risk = deaths between 28 days and one year after birth per 1,000 neonatal survivors.

SOURCE: National Infant Mortality Surveillance Project.

Researchers from the Centers for Disease Control analyzed NIMS statistics to try to account for higher infant mortality risk in the South.[1] They found that more than 70 percent of the higher infant mortality risk in the South was due to the higher proportion of black births in the region. For 1980, 25 percent of all births in the South were black, versus a 12 percent average in other regions.

Because black infants' health and social circumstances lead them to be twice as likely as white infants to die, the high concentration of black infants at relatively high risk of death causes the entire region's infant mortality risk to rise relative to other regions. It is this higher concentration that accounts for the higher infant mortality risk.

The remainder of excess risk was due to higher infant mortality among southern whites. Unlike black infants, whose mortality risk is not greater than in other regions of the country, southern white infants' risk of death is significantly elevated.

The causes of elevated risk of death among white infants found in the NIMS study are particularly notable:

- Of the elevated mortality risk in 1980, 36 percent was due to a higher frequency of low-birthweight births (infants born weighing less than 5.5 pounds), 18 percent was due to higher mortality in low-birthweight infants, and another 46 percent of the elevated risk was due to higher mortality among infants born weighing 5.5 pounds or more. White infants born in the

TABLE 2.3

Infant Mortality Rates for Selected Causes of Death, per 100,000 Live Births, 1986

	Southern Region				United States			
	All Races	White	Black	Nonwhite	All Races	White	Black	Nonwhite
Births	1,372,250	1,010,589	331,731	361,661	3,756,547	2,970,439	621,221	786,108
Total infant deaths	15,207	9,165	5,869	6,042	38,891	26,564	11,204	12,327
Infant mortality rate	1,108.2	906.9	1,769.2	1,670.6	1,035.3	894.3	1,803.5	1,568.1
Congenital anomalies	227.6	223.0	249.0	240.3	219.5	219.5	232.1	219.4
Symptoms, signs, and ill-defined conditions, including SIDS	155.2	127.0	247.8	234.2	160.7	139.3	275.4	241.7
Birth trauma, intrauterine hypoxia, birth asphyxia, and RDS	136.2	118.0	198.7	186.9	123.8	110.0	204.0	176.1
Other conditions of the perinatal period, including disorders related to low birthweight	398.8	289.6	750.0	704.0	361.3	283.6	779.4	655.3
Accidents and adverse effects	29.9	24.4	47.9	45.1	24.2	20.3	43.1	39.1
Pneumonia and influenza	18.1	13.6	33.5	30.7	17.6	14.2	35.9	30.8

SOURCE: National Center for Health Statistics.

South who were not born at low birthweight had elevated death rates due to birth trauma-hypoxia-asphyxia, indicating possible problems with the delivery of obstetrical services.

- White southern infants also had a higher risk of death from causes such as prematurity-low birthweight-respiratory distress syndrome, pointing to a need for improvements in basic prenatal, labor and delivery, and infant care in all birthweight categories.[2]

NIMS researchers also compared the better health outcomes of infants in the West with those in other regions. These findings, which include lower risk of low birthweight and lower risk of death across birthweight categories and racial groups in the West, demonstrate that improvements in the mortality risk of black infants are achievable.

- Had black infants born in the South in 1980 experienced the same infant mortality risk as western black infants, there would have been more than 1,300 fewer black infant deaths and a 13 percent drop in the black infant mortality risk.

Causes of Death Among Infants

Analysis of the causes of infant death in 1986 from NCHS data reveals similar patterns in mortality, including patterns that might be missed when looking at aggregate statistics. Table 2.3 shows mortality rates for infants by selected causes of death.

- For all races in 1986, the leading cause of infant death in the South and nationally was conditions of the perinatal period, including disorders related to low birthweight. Southern black infants were more than 2.5 times as likely as southern white infants to die from this largely preventable cause of death.
- The second leading cause of infant death was congenital anomalies. These conditions, commonly called birth defects, are considered largely unpreventable. Mortality rates attributable to congenital anomalies were virtually identical for black and white infants both nationally and in the South in 1986.
- For the remaining four leading causes of infant death—all of which are considered preventable or probably or possibly preventable through access to high-quality infant health services, good nutrition, and basic social supports—black infants experienced substantially higher rates of mortality. Southern black infants' increased risk of death due to preventable causes is especially troubling.

Low-Birthweight Births

Birthweight and maturity at birth are important predictors of infant health. Infants born too soon (before 37 completed weeks' gestation) or too small (weighing less than 5.5 pounds) face a significantly greater risk of death in the first months of life. Three-quarters of all neonatal deaths result from low birthweight, and, as shown above, low birthweight continues to be the single largest cause of infant death. When combined with prematurity and respiratory distress syndrome (which primarily affects tiny infants with poorly developed lungs), low-birthweight birth results in infant death or life-long disability. While all of the causes of low birthweight are not known, studies have demonstrated that early and continuous prenatal care can reduce the risk of low-birthweight birth significantly.[3]

During the 1980s there was no sustained change in the percentage of babies born at low birthweight nationwide (Table 4.18a). In fact, the percentage of

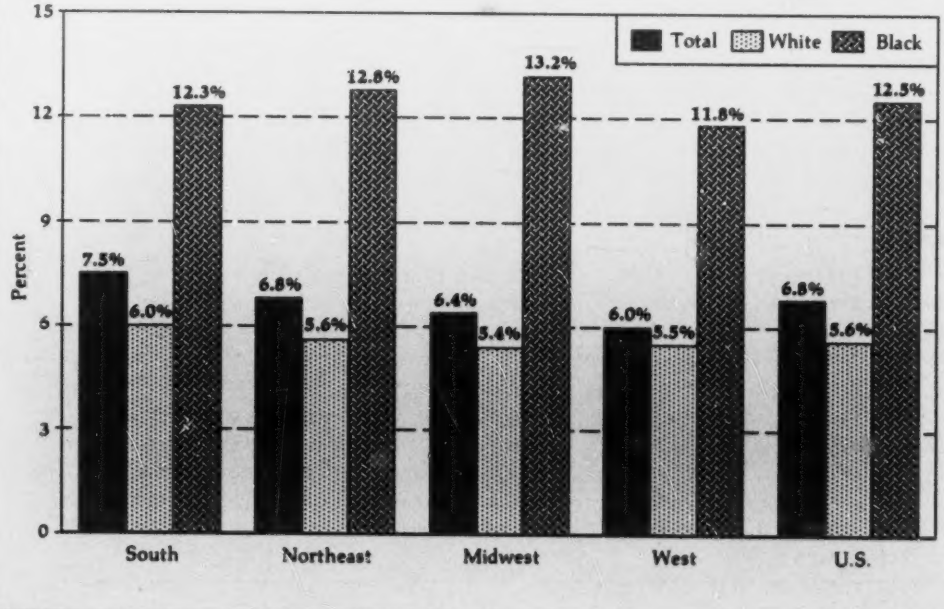
infants born prematurely or at very low birthweight (weighing less than 3.5 pounds) increased. Moreover, the gap between white and black low-birthweight rates in 1986 stood at its widest point since 1969 (at 5.6 percent for whites and 12.5 percent for blacks). Recently released national natality statistics point to an even wider gap in 1987.[4]

In the southern region, 7.5 percent of all infants, compared with 6.8 percent of all infants nationally, were born at low birthweight in 1986. This was by far the highest proportion of infants born at low birthweight among the regions of the United States (Figure 2.4). Low birthweight disproportionately affected southern white infants (Table 2.4). Given the effect of low birthweight on the risk of infant mortality, it is no surprise that white infants in the South also face a disproportionate risk of death in the first year of life.

- Southern states, like the nation, have made inadequate progress in reducing the proportion of infants born at low birthweight. Between 1978 and 1986, the nation showed only a 4 percent decline in low birthweight and only six states in the South had a greater decline. West Virginia and Delaware actually had increases of almost 3 percent during this period (Table 4.18a).
- Between 1985 and 1986, for the nation overall and for seven of the 18 states in the region, there was no decline in the percentage of low-birthweight births. In seven other states there were slight increases. Only Arkansas, the District of Columbia, Louisiana, and Mississippi had declines in low birthweight.
- As a result, among southern states only Oklahoma had a percentage of low-birthweight births overall that was better than the national average. Only Maryland and the District of Columbia had a proportion for white infants that was better than the national average (Tables 4.4a and 4.4b).

FIGURE 2.4

Low-Birthweight Rates by Race and Region, 1986



- Nationally the proportion of black infants born at low birthweight declined only 3 percent between 1978 and 1986 and increased about 1 percent between 1985 and 1986 (Table 4.18c). Six southern states showed similar or greater increases between 1985 and 1986. In 1986 seven of the 18 southern states exceeded the national average proportion of low-birthweight births for black infants (12.5 percent). The District of Columbia was highest, at 14.2 percent for black infants (Table 4.4c).
- Similarly, between 1985 and 1986 low birthweight among all nonwhite infants increased about 1 percent. Contributing to this backward slide were five southern states with increases in the proportion of low-birthweight births and three states that made no progress in reducing low birthweight (Table 4.18d). In 1986 low-birthweight percentages for nonwhite infants in southern states ranged from 8.5 in Oklahoma to 13.6 in the District of Columbia (Table 4.4d).

Prenatal Care

Because early and adequate prenatal care is related strongly to reduced risk of low birthweight and often reflects families' insurance status and connections to ongoing sources of health care, prenatal care is a key indicator of maternal and

TABLE 2.4

Low Birthweight and Prenatal Care Use, by Race and Region, 1986

	South	Northeast	Midwest	West	U.S.
Low Birthweight					
All races	7.5%	6.8%	6.4%	6.0%	6.8%
White	6.0%	5.6%	5.4%	5.5%	5.6%
Black	12.3%	12.8%	13.2%	11.8%	12.5%
Nonwhite	11.9%	11.8%	12.2%	8.4%	11.2%
Early Prenatal Care					
All races	72.8%	77.8%	80.5%	75.3%	75.9%
White	76.9%	82.1%	83.0%	76.2%	79.2%
Black	60.5%	56.4%	66.4%	68.2%	61.6%
Nonwhite	61.2%	58.8%	66.5%	71.1%	63.7%
Late or No Prenatal Care					
All races	7.2%	6.4%	3.8%	5.8%	6.0%
White	6.2%	4.5%	3.0%	5.5%	5.0%
Black	10.1%	16.2%	7.8%	7.6%	10.6%
Nonwhite	10.0%	15.0%	7.9%	7.2%	9.9%
Adequate Prenatal Care					
All races	65.4%	68.8%	73.5%	67.5%	68.4%
White	70.3%	73.7%	76.7%	69.4%	72.6%
Black	50.8%	44.1%	55.5%	56.9%	50.6%
Nonwhite	51.5%	46.7%	55.7%	56.4%	51.8%
Inadequate Prenatal Care					
All races	9.6%	8.4%	5.2%	7.9%	8.0%
White	8.0%	5.8%	4.0%	7.0%	6.3%
Black	14.4%	21.5%	11.7%	13.5%	15.3%
Nonwhite	14.2%	19.8%	11.8%	13.1%	14.7%

SOURCE: National Center for Health Statistics.

infant health. Three measures of prenatal care use are used in this book. Two measure the timing of entry into care: "early prenatal care" describes care beginning in the first three months of pregnancy, and "late or no care" is no prenatal care visits or none before the seventh month of pregnancy. A third and more precise indicator, "adequate care," measures both the timing of entry into care and the number of visits against the length of the pregnancy (see Technical Notes for a fuller description).

Early Prenatal Care

The Surgeon General's objective for the nation for prenatal care is to have 90 percent of all pregnant women begin care early, in the first three months of pregnancy.[5] In 1986, however, only 75.9 percent of all infants were born to women who began prenatal care early. The southern regional data were worse: only 72.8 percent of all pregnant women began care during the critical first three months of pregnancy. Pregnant women in the South were less likely than women in any other region to begin care early (Table 2.4).

- Nationwide, early prenatal care use for all races increased only by about 1 percent between 1978 and 1986. A number of southern states showed greater progress. West Virginia and Kentucky both increased by more than 8 percent. However, some states, such as Arkansas, have rates that are as stagnant as the nation overall. Other states, such as Texas, which had made gains, are slipping. Florida had one of the worst prenatal care records in 1978 and fared somewhat worse by 1986. Half of the southern states showed no change or a slight worsening of prenatal care utilization between 1985 and 1986 (Table 4.19a).
- In 1986 early prenatal care use among women of all races varied widely across the South—from 80 percent in Maryland, Virginia, and Missouri to 67 percent in Texas and South Carolina and 59 percent in the District of Columbia. In that year 11 southern states had early prenatal care records that were worse than the national average (Table 4.5a).
- There was similar variation in prenatal care utilization when just white pregnant women are considered. In 1986 about 86 percent of infants in Maryland, Louisiana, and Mississippi were born to a woman who had received prenatal care in the first three months of pregnancy, compared with 68.4 percent of infants in Texas. Half of southern states had records for white infants worse than the national average in 1986 (Table 4.5b).
- For southern black infants, the risk of being born without benefit of early prenatal care is great. When compared with white rates, the percentages are even more striking. The state that had the worst record for whites (Texas, with 68.4 percent) did better for whites than the state with the best record for blacks (Virginia, with 68.1 percent) did for blacks (Table 4.5b and 4.5c).
- The national average for blacks was 61.6 percent in 1986. Nine southern states had early prenatal care records for blacks that were worse than the national average.
- Only about half of black infants in Florida were born to mothers who received early prenatal care, ranking Florida in last place in the nation for early prenatal care use among blacks.
- One southern state, Kentucky, showed considerable progress in improving receipt of early prenatal care among black women. Between 1978 and 1986, the percentage of babies born to black mothers who received early prenatal care increased by 23 percent, while the average increase for the nation was 2 percent for the same period.

Late or No Prenatal Care

The 1980s have witnessed a steady increase in the proportion of infants born to women who received no prenatal care or none before the last three months of pregnancy. Infants born to women receiving late or no care face higher risk of death and disability. Between 1978 and 1986, the proportion of infants born to women of all races who received late or no care increased from 5.4 to 6.0, an 11 percent increase. In fact, 1986 was the seventh year in a row in which the trend in late or no care worsened or showed no improvement at all.

A similar adverse trend was evident in the South between 1978 and 1986. This is particularly disturbing because most southern states entered the eight-year period with late or no prenatal care records worse than the national average.

- Nine states in the South had increases between 1978 and 1986 in the percentage of women who received late or no care. States such as Florida, Maryland, South Carolina, and Texas had shocking increases of 35 to 40 percent (Table 4.20a). Between 1978 and 1986 the national proportion of late or no prenatal care among blacks rose by 14 percent, leaving black infants at increasingly greater risk for an unhealthy start in life. In the South 12 states had increases in this category—in seven of the 12 states these increases were more than 20 percent (Table 4.20c).
- In 1986 the proportion of babies born to mothers who received late or no prenatal care was greater than the national average in half of the southern states (Table 4.6a). In that year, 65,924 infants were born to women who received late care and another 30,820 to women who received no care before delivery.
- Generally, the trend for whites paralleled that for women and infants of all races. By 1986 six states exceeded the U.S. average for late or no care among whites (Table 4.6b). Even though only six states exceeded the national average the inclusion of Texas with its large numbers of whites pushed the regional average above the national average for whites.
- In Texas all races and whites were about twice as likely to receive late or no prenatal care as all women or white women nationally. Almost 12 percent of all infants in Texas were born to women receiving late or no care, compared with the national average of 6 percent.
- For black women and infants, the southern states' late or no prenatal care records varied greatly in 1986, from 5.8 percent in Mississippi to at least twice that proportion in seven other states (Arkansas, the District of Columbia, South Carolina, Oklahoma, Texas, Florida, and West Virginia).

Births to Teens and Risk of Low-Birthweight Births

Teenage pregnancy and childbearing is related to a host of adverse consequences. The social consequences of becoming a teen parent are often severe. Teen parents, mothers and fathers, are less likely to complete high school or be employed, more likely to divorce if married, and more likely to live in poverty.[6]

The health consequences of early childbearing are also of major concern. Teenage pregnant women are generally the least likely of any age group to receive early prenatal care, placing themselves and their babies at increased risk of health complications. It is the delayed receipt of prenatal care that results in a higher risk of lower birthweight among infants born to teens, not biological factors. NIMS data confirm that infants born to teen mothers are more likely to be born at low birthweight and more likely to die in the first year of life.

Moreover, the younger the mother the greater the risk. At the same time, research has demonstrated the effectiveness of early and comprehensive prenatal care in reducing the health risks to teen mothers and their infants.[7]

In 1985 there were 467,485 births to women younger than 20 in the United States (see Technical Notes). Births to teens were 12.7 percent of all U.S. births. Births to teens in the South were a higher share—15.4 percent of all southern births in that year. Regardless of race, a disproportionate share of births in the South occurs to women younger than 20. As a result, births to teens in the southern states accounted for 45.8 percent of the U.S. total number of births to women younger than 20 in 1985.

- Among the southern states, the proportion of births that were to teens varied greatly in 1986, from 20.8 percent in Mississippi to 12.1 percent in Maryland. But most southern states ranked very high nationally. For the United States as a whole, 13 of the 15 states with the greatest proportion of births to teen mothers in 1986 were southern (Table 2.5).
- In 1986 births to white women younger than 20 accounted for 10.6 percent of all white births nationally and 12.7 percent of southern births. Nine of the 10

TABLE 2.5

Pregnancy and Birth Rates[1] for Adolescents (Ages 15-19), by State, 1985

State	Number of Pregnancies[2]	Number of Births	Pregnancy Rate	Pregnancy Rank	Birth Rate	Birth Rank	Percent of All Births Attributed to Women Younger Than 20
Alabama	18,310	10,404	112	10	64	11	17.9
Arkansas	10,200	6,578	111	9	72	15	19.2
Delaware	2,590	1,285	101	4	50	3	13.7
District of Columbia	5,000	1,697	211	18	72	16	17.8
Florida	48,080	22,133	126	15	58	7	13.9
Georgia	30,650	16,219	132	17	70	13	17.3
Kentucky	13,530	9,109	92	2	62	10	17.6
Louisiana	21,210	13,713	109	8	71	14	17.3
Maryland	20,640	8,021	121	14	47	1	12.1
Mississippi	12,790	8,688	113	11	77	18	20.8
Missouri	18,320	10,179	95	3	53	4	13.5
North Carolina	27,700	13,989	114	13	57	6	16.0
Oklahoma	13,880	8,267	113	12	67	12	15.8
South Carolina	14,210	8,530	102	5	61	9	17.0
Tennessee	19,390	11,123	104	6	60	8	17.1
Texas	82,230	49,950	131	16	73	17	15.3
Virginia	23,070	10,250	106	7	47	2	12.2
West Virginia	6,400	4,054	87	1	55	5	17.1
Southern Region	388,200	214,189	n/a		n/a		15.4
United States	1,000,110	467,485	110		51		12.7

[1]Rates per 1,000 women ages 15 to 19.

[2]The estimated number of pregnancies is based on the number of reported births, the estimated number of abortions, and the estimated number of miscarriages.

SOURCE: Alan Guttmacher Institute, *Teenage Pregnancy in the United States: The Scope of the Problem and State Responses*, 1989.

states with the greater proportion of all white births to teen mothers in 1986 were southern.

- On the other hand, no strong regional pattern exists for blacks and nonwhites. High proportions of black and all nonwhite teen births occurred in both southern and non-southern states. The proportion of births to blacks that were to teens among southern states ranged from 20.1 in the District of Columbia to 29.3 in Arkansas (Table 4.9c).

The proportion of births that occurs to teens is most frequently used as a measure of teenage childbearing because it is available on an annual basis for the nation and all states. However, the teen birth rate, which compares the number of births to teens to the number of teens in the population, provides a more accurate picture of patterns in teenage childbearing. Table 2.5 shows 1985 teen birth rates, along with pregnancy rates and the proportion of births that occurred to teens, for the nation and the southern states.

- In the South, 10 states had pregnancy rates for 15- to 19-year-old women that were above the national rate for 1985. In that year the U.S. pregnancy rate for women ages 15 to 19 was estimated to be 110 per 1,000. For the southern states, teen pregnancy rates ranged from 87 in West Virginia to 211 in the District of Columbia.
- In 1985, 15 of the 18 states in the southern region had birth rates for women ages 15 to 19 higher than the U.S. rate.
- Fourteen of the 18 southern states had white teenage birth rates above the national average for whites in that year. For nonwhites, 10 of 17 states with reliable birth rates had rates above the nonwhite U.S. rate.

Nationally, among all age groups of women giving birth, teens are the least likely to receive early prenatal care.

- In 1986, when 9.4 percent of all teen births in the nation were at low birthweight, between 9.6 percent and 13 percent of infants born to teens in 13 southern states (Virginia, Tennessee, Arkansas, Florida, Alabama, North Carolina, Georgia, Maryland, Delaware, Mississippi, Louisiana, South Carolina, and the District of Columbia) were born at low birthweight (Table 4.10a).
- The low-birthweight rates for black infants born to teen mothers in the South are even more striking. Rates ranged from 11.7 percent in Missouri to 14.4 percent in Louisiana. Only five southern states (Missouri, Oklahoma, Virginia, Tennessee, and Alabama) had proportions of births to teens that were low birthweight in 1986 lower than the national average for black teens of 13.3 percent (Table 4.10c).
- Southern states with the highest proportion of births to teens tend also to have the highest proportion of low-birthweight births attributable to teens. The three southern states with the highest percentages of low-birthweight births attributable to teens in 1986 (Mississippi, Arkansas, and Alabama) ranked among the states with the highest percentages of births to teen mothers (Table 4.11a and 4.9a). The southern region's higher proportion of teen births and higher proportion of low-birthweight births combine to produce the overall high concentration of low-birthweight births in the South. Only Oklahoma is below the national average (Table 4.4a).

The Health of Children

Measuring the health status of children who survive infancy is difficult because there is no relatively comprehensive data system measuring child health status comparable to the vital statistics system for infants and pregnant women. However, the available national statistics reveal significant differences between poor and non-poor children in health status and health care utilization. Moreover, findings from the 1987 National Health Interview Survey (HIS) provide useful information on differences in child health status and utilization among regions of the country. This section uses those HIS statistics to provide insight into the health of southern children compared with their counterparts nationally (see Technical Notes).

Health Status

For all age groups the 1987 HIS data show that fewer southern children were in excellent health and more southern children experienced bed days due to acute or chronic conditions than their counterparts nationally (Table 2.6).

TABLE 2.6

Child Health Status, by Age, Race, and Annual Income, 1987

		U.S.				
		Race			Income	
	South[1]	All Races	White	Black	Less Than $10,000	More Than $35,000
Children Younger Than 5						
Percent in excellent health	51.7%	54.0%	55.8%	45.8%	41.0%	64.0%
Number of bed days experienced due to acute or chronic conditions per child per year	5.1	4.9	4.9	5.6	5.3	4.7
Number of restricted days due to acute or chronic conditions per child per year	10.2	10.2	10.8	8.3	10.3	9.9
Children Ages 5 to 17						
Percent in excellent health	48.6%	53.4%	56.1%	39.7%	36.4%	66.5%
Number of bed days experienced due to acute or chronic conditions per child per year	3.8	3.7	3.8	3.1	4.7	3.5
Number of restricted days due to acute or chronic conditions per child per year	8.3	8.3	8.5	7.0	9.5	8.4
Number of school days lost due to acute or chronic conditions per child per year	4.4	4.4	4.5	4.2	5.6	4.2

[1]Southern regional data exclude Missouri.

SOURCE: National Health Interview Survey..

- Only 51.7 percent of southern children younger than five were in excellent health, compared with 54.0 percent nationally. This gap in health status widened for older southern children. While nationally 53.4 percent of children between the ages of five and 17 were reported to be in excellent health in 1987, only 48.6 percent of southern children in this age group were in excellent health.
- Southern children younger than five experienced a slightly higher number of bed days due to acute or chronic conditions than children nationally. This gap narrowed for children ages five to 17.

Health Services Utilization

Studies repeatedly have shown that preventive investment in pediatric and dental care and regular exams and immunizations are cost-effective. Children need to receive necessary medical care throughout childhood.

For all measures and all age groupings, HIS findings from various years show that southern children were less likely to receive health care services than their counterparts in other regions of the country (Table 2.7).

- In 1982, 23.4 percent of southern children younger than 17 had no physician contact within the previous year.

TABLE 2.7

Child Health Utilization by Race and Income

		U.S.					
		Race				Income	
	South[1]	All Races	White	Black	Hispanic	Less Than $10,000	More Than $35,000
Percent of children younger than 18 who have not had a physician contact in a year, 1987	23.4%	n/a	18.9%	24.6%	n/a	21.3%	15.7%
Percent of children younger than 17 who have not had a routine physical in a year, 1982	40.6%	34.6%	35.6%	28.8%	34.5%	32.3%	30.0%
Percent of children younger than 17 who have never had a routine physical, 1982	6.1%	3.6%	3.5%	4.2%	9.2%	5.4%	1.6%
Percent of 3- to 16-year-olds who have not had a vision examination in a year, 1982	42.8%	38.2%	37.2%	42.1%	41.6%	40.6%	34.0%
Percent of 5- to 11-year-olds who have not had a dental visit in a year, 1986	37.7%	28.3%	24.7%	41.3%	40.6%	43.4%	13.2%
Percent of 5- to 11-year-olds who have never had a dental visit, 1986	16.8%	11.4%	10.2%	16.9%	20.3%	17.4%	4.6%
Percent of 12- to 17-year-olds who have not had a dental visit in a year, 1986	37.6%	28.8%	25.9%	44.3%	40.6%	42.5%	13.8%
Percent of 12- to 17-year-olds who have never had a dental visit, 1986	6.1%	3.4%	2.7%	7.0%	8.9%	5.0%	—

[1]Southern regional data exclude Missouri.

SOURCE: National Health Interview Survey.

- In 1982 southern children younger than 17 were 20 percent more likely than their counterparts nationally to not have had a routine physical examination within a year and 75 percent more likely to never have had a routine physical examination.
- More than 40 percent of southern three- to 16-year-olds had not had a vision examination in a year—a percentage higher than blacks and Hispanics nationally and higher than their national counterparts in families with an income level of less than $10,000.
- In 1986 about 38 percent of southern five- to 11-year-olds had not had a dental visit in the previous year, compared with 28 percent nationally. Almost 22 percent of children in the Northeast and Midwest had not had a dental visit in the past year.
- In 1986 southern children between the ages of 12 and 17 were almost twice as likely as their national counterparts to never have had a dental visit.

These findings from the household surveys paint a grim picture of the health status and health care utilization of children living in the southern states. Southern children are in poorer health and are less likely to receive health care services. The low numbers of southern children receiving dental services are disturbing.

Causes of Child Deaths

The health problems associated with poverty and deprivation are well documented for children. Poor children suffer higher rates of mortality from all causes, including congenital anomalies (birth defects), low birthweight, accidents, poisonings, and violence. The higher rates are not confined to the first year of life. Poor children also are far more likely than non-poor children to be limited in major life activities because of chronic illnesses or disabilities, and when illness and disability do strike, childhood poverty significantly increases their severity.[8]

Not only are southern children poorer, sicker, and less likely to receive health services than other children, but statistics also indicate they are more likely to die from "external" causes as well as "natural" causes. Natural causes include cancer and congenital anomalies; external causes, such as accidents and poisoning, are largely preventable (Table 2.8).

- For the years 1981-1985 southern children between the ages of one and four had a mortality rate of 60.6 per 100,000, compared with 55.3 nationally. Southern children in this age group had higher mortality rates for both external and natural causes.
- In those years, 6,806 children ages one to four in the southern region died. Of these, just over half died from external causes.
- Among children ages one to four, mortality rates from all causes ranged from 46.4 per 100,000 in West Virginia to more than 70 in the District of Columbia, Florida, and Mississippi.
- For the 1981-1985 period, children in the South and nationally were more likely to die of natural causes in the one-to-four age grouping and to die of external causes in the five-to-nine and 10-to-14 age groups. However, the southern region's death rates exceeded the national rates for all age groupings and for all causes.
- For five- to nine-year-olds and 10- to 14-year-olds, 13 of the southern states had mortality rates higher than the national rate.

- Among southern states, for the years 1981-1985 Mississippi had the highest mortality rates for children ages five to nine and 10 to 14. Ten more Mississippi children died per 100,000 children than for the nation as a whole.

Comparisons of death rates by natural versus external causes reveal striking differences in some states. For example:

- In only one southern state, Arkansas, are children ages one to four more likely to die from external than natural causes. Similar incidence of death from external causes is shown for Arkansas children ages five to nine and 10 to 14.
- In 15 southern states, children ages one to four had mortality rates from external causes that met or exceeded the national average. Only Maryland, Tennessee, and Missouri had lower rates. Ten states exceeded the national average of deaths from natural causes.
- In Virginia, across the age groups, not only are the mortality rates among the lowest in the region, the rates of death from external causes are particularly low relative to natural cause rates.

The excess number of southern children dying from external causes is particularly striking and largely preventable. It is very possible that poverty-related factors such as housing and sanitation, as well as the possible role of variations in access to health care, play a role.

TABLE 2.8

Childhood Mortality Rates[1], All Races, by State and Cause of Death[2], 1981-1985

State	Ages 1-4			Ages 5-9			Ages 10-14		
	External Causes	Natural Causes	All Causes	External Causes	Natural Causes	All Causes	External Causes	Natural Causes	All Causes
Alabama	28.3	29.3	57.6	16.1	13.5	29.6	19.4	15.0	34.4
Arkansas	31.0	28.2	59.2	21.2	15.0	36.2	25.1	10.6	35.7
Delaware	24.8	36.1	60.9	15.9	20.8	36.7	16.9	10.2	27.1
District of Columbia	31.7	41.8	73.5	16.1	16.7	32.8	13.2	19.0	32.2
Florida	35.6	36.0	71.6	15.7	12.6	28.3	19.6	11.2	30.8
Georgia	29.3	34.3	63.6	17.1	17.0	34.1	18.3	13.5	31.8
Kentucky	24.5	28.1	52.6	13.1	11.8	24.9	17.5	10.3	27.8
Louisiana	34.4	35.1	69.5	17.6	12.0	29.6	20.5	13.1	33.6
Maryland	18.6	33.0	51.6	12.0	11.1	23.1	14.8	11.3	26.1
Mississippi	34.6	38.0	72.6	22.5	14.9	37.4	25.1	13.2	38.3
Missouri	23.8	29.5	53.3	13.4	11.9	25.3	16.2	12.7	28.9
North Carolina	25.6	29.3	54.9	15.2	12.6	27.8	19.2	11.6	30.8
Oklahoma	32.7	33.9	66.6	17.8	15.8	33.6	22.8	14.3	37.1
South Carolina	28.1	33.9	62.0	17.2	13.7	30.9	20.5	14.1	34.6
Tennessee	23.9	29.1	53.0	16.0	13.4	29.4	19.1	13.9	33.0
Texas	30.3	33.3	63.6	15.4	13.1	28.5	18.4	12.2	30.6
Virginia	19.2	28.7	47.9	10.4	14.6	25.0	12.8	10.2	23.0
West Virginia	19.7	26.7	46.4	11.8	12.8	24.6	17.9	9.9	27.8
Southern Region	28.3	32.3	60.6	15.6	13.4	29.0	18.7	12.3	31.0
United States	24.5	30.8	55.3	13.7	13.0	26.7	16.3	12.0	28.3

[1]Deaths per 100,000 population.

[2]See Technical Notes for definitions of external and natural causes of death.

SOURCE: Unpublished data from the National Center for Health Statistics, Compressed Mortality File.

Infant Mortality in Southern Cities

Traditionally the southern region has been perceived as far more rural than the rest of the country. But today large metropolitan areas can be found in every state in the South, and in many states there are several major cities.

Southern metropolitan areas have not escaped the adverse conditions common to northeastern and midwestern cities. Poverty and its correlates of inadequate housing, reduced health and nutritional status, and family stress not only linger in southern rural areas but also stalk southern cities. Prosperity in these cities has tended to be in the greater metropolitan areas, rather than in central city areas. Thus differences in poverty status and health status are likely to be found between the cities and the county areas in which they are contained.

City and County Statistics

Statistics from birth and death certificates provide an opportunity to document individual city and county infant mortality rates for the southern region. These statistics are shown in Table 2.9 and highlighted below:

- In five of the 11 southern metropolitan counties with reliable rates, black infants were twice as likely as white infants to die before their first birthday.
- Birmingham, Alabama's infant mortality rate for 1986 was 17.1 deaths per 1,000 live births for all races. For Jefferson County as a whole the infant mortality rates were 13.0 for all races, 8.8 for whites, and 18.3 for blacks.
- In Kansas City, Missouri, the overall infant mortality rate was 16.2. Both the white rate of 13.0 and the black rate of 21.5 were high. Not surprisingly, Jackson County, which contains Kansas City, had somewhat lower infant mortality rates for all races, whites, and blacks.
- In 1986 Charlotte, North Carolina's infant mortality rate was 11.4 per 1,000. In Mecklenberg County the black infant mortality rate, at 25.8, was the highest among those southern metropolitan counties with reliable black rates.

Infant Mortality in Urban and Rural Areas of the South

The problem of high infant mortality affects nearly every geographic area of the United States. However, there is a considerable gap between areas with high concentrations of poverty and more affluent areas. Because both central city areas and some of our nation's most rural counties have disproportionately poor populations, each type of area is frequently one in which the infant mortality problem is particularly severe.

National vital statistics provide an opportunity to compare the infant mortality rates of urban and rural areas. For purposes of this book, we compare mortality rates for infants living in the most urban areas (that is, urban centers within metropolitan counties), and the most rural areas (areas outside of cities and towns in nonmetropolitan counties) (see Technical Notes). Thus this analysis excludes many counties or portions of counties where more affluent families tend to live in suburban or "ex-urban" areas (those outside suburban areas) surrounding poorer cities.

Tables 2.10 and 2.11 show 1986 urban, rural, and statewide infant mortality rates and neonatal mortality rates for the southern region. Infants in both the urban and rural areas experienced a higher risk of death than did infants in general. However, infant mortality rates for urban infants in 16 southern states where rates could be calculated tended to be higher than those of rural infants.

TABLE 2.9

Births, Infant Deaths, and Infant Mortality Rates for Selected Cities and Surrounding Counties, by Race, 1986

	Births			Infant Deaths			Infant Mortality Rate[1]		
	All Races	White	Black	All Races	White	Black	All Races	White	Black
Alabama									
Jefferson County	9,961	5,540	4,378	129	49	80	13.0	8.8	18.3
Birmingham	4,807	1,455	3,330	82	20	62	17.1	—	18.6
Arkansas									
Pulaski County	6,060	3,911	2,078	75	42	33	12.4	10.7	15.9
Little Rock	3,006	1,629	1,346	37	16	21	12.3	—	—
Delaware									
New Castle County	6,223	4,716	1,424	79	47	31	12.7	10.0	21.8
Wilmington	1,626	701	911	34	16	18	20.9	—	—
Florida									
Dade County	29,217	18,598	10,236	314	143	169	10.7	7.7	16.5
Miami	15,649	7,523	8,000	103	34	69	6.6	4.5	8.6
Georgia									
Fulton County	10,743	3,532	7,058	178	37	140	16.6	10.5	19.8
Atlanta	8,529	1,764	6,647	140	17	123	16.4	—	18.5
Kentucky									
Jefferson County	9,62[illegible]	7,314	2,220	77	57	20	8.0	7.8	—
Louisville	4,34[illegible]	2,614	1,685	45	28	17	10.4	—	—
Louisiana									
Orleans Parish	10,057	2,313	7,388	156	29	124	15.5	—	16.8
New Orleans		Same			Same		Same		
Maryland									
Baltimore County	13,276	4,134	8,966	215	52	163	16.2	12.6	18.2
Baltimore		Same			Same			Same	
Mississippi									
Hinds County	4,346	1,666	2,653	50	11	39	11.5	—	14.7
Jackson	3,521	1,206	2,290	43	10	33	12.2	—	14.4

- In all 16 states, infant mortality rates in urban areas were equal to or greater than rates in rural areas. In fact, rates were equal in only two states (Mississippi and South Carolina) (Table 2.10).
- A similar pattern is evident for overall neonatal mortality rates. Only three states (Florida, Kentucky, and Mississippi) had urban neonatal rates lower than rural neonatal rates (Table 2.11).
- Among white infants, the risk of death in the first year of life was greater for urban infants in all but six states (Alabama, Florida, Kentucky, Maryland, Texas, and West Virginia). The risk of death in the first month of life was greater in all but five states (Alabama, Florida, Kentucky, South Carolina, and Texas).
- Black infant mortality rates were available for both urban and rural areas in only 10 southern states. Of these, four had rural rates that were greater than

TABLE 2.9, Continued

	Births			Infant Deaths			Infant Mortality Rate[1]		
	All Races	White	Black	All Races	White	Black	All Races	White	Black
Missouri									
Jackson County	10,522	7,253	3,076	143	77	64	13.6	10.6	20.8
Kansas City	7,759	4,632	2,976	126	60	64	16.2	13.0	21.5
North Carolina									
Mecklenberg County	7,277	4,652	2,483	77	37	64	10.6	8.0	25.8
Charlotte	5,613	3,132	2,362	64	26	38	11.4	—	16.1
Oklahoma									
Oklahoma County	10,849	8,073	2,067	154	109	39	14.2	13.5	18.9
Oklahoma City	7,674	5,537	1,616	121	79	36	15.8	14.3	22.3
South Carolina									
Richland County	4,205	2,060	2,074	58	15	42	13.8	—	20.3
Columbia	2,257	879	1,325	28	2	26	—	—	—
Tennessee									
Shelby County	14,020	6,231	7,649	199	53	142	14.2	8.5	18.6
Memphis	11,428	4,012	7,301	181	43	134	15.8	10.7	18.4
Texas									
Dallas County	36,623	27,102	8,274	379	237	135	10.3	8.7	16.3
Dallas	20,815	13,230	6,950	245	129	111	11.8	9.8	16.0
Virginia									
Henrico County	3,480	1,056	2,364	67	11	56	19.3	—	23.7
Richmond		Same			Same			Same	
West Virginia									
Kanawha County	2,723	2,510	196	19	16	3	—	—	—
Charleston	736	612	116	7	6	1	—	—	—

[1]Deaths per 1,000 live births.

SOURCE: National Center for Health Statistics.

urban rates. This may reflect a somewhat different pattern of risk for urban black infants compared with urban white infants in the southern region.

Overall, the urban/rural comparisons and the city-by-city infant mortality statistics point to a notable health problem among southern urban pregnant women and infants. Several factors may contribute to this problem, including poverty and its adverse consequences. Limited access to health care services among medically indigent pregnant women and infants may exist even in cities where specialized care facilities are located. Another factor may be discrepancies between urban and rural fetal mortality rates. That is, rural infants may experience higher rates of stillbirth, and this loss would not be recorded in infant mortality statistics.[9] In any case, infant mortality rates in both urban and rural southern areas are generally high, and solutions to combat problems in both types of communities must be developed.

TABLE 2.10

Infant Mortality Rates[1], by Race, for Urban and Rural Areas, 1986

	All Races			White			Black		
	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall
Alabama	15.4	14.0	13.3	9.6	10.6	9.8	21.8	21.0	20.0
Arkansas	11.7	11.1	10.3	9.7	9.3	8.9	16.4	18.8	15.3
Delaware	18.3	—	11.5	—	—	9.6	—	—	17.6
District of Columbia	—	—	21.1	—	—	—	—	—	24.0
Florida	10.2	11.4	11.0	7.7	9.8	8.8	15.5	18.2	18.2
Georgia	15.5	12.5	12.5	9.8	9.5	9.4	19.3	19.3	18.4
Kentucky	10.7	10.5	9.8	9.7	10.4	9.6	14.3	—	12.7
Louisiana	14.7	10.0	11.9	10.2	7.3	8.7	18.6	15.2	17.0
Maryland	14.4	12.4	11.7	10.7	11.7	9.5	18.6	—	17.3
Mississippi	12.6	12.6	12.4	10.7	8.7	9.0	14.8	16.9	16.2
Missouri	12.8	9.0	10.7	10.2	8.8	9.3	19.5	—	18.5
North Carolina	13.7	10.9	11.5	11.1	8.3	9.2	18.0	17.2	17.4
Oklahoma	11.8	8.6	10.4	11.0	8.4	10.1	18.1	—	17.3
South Carolina	14.5	14.5	13.2	9.3	11.8	10.1	20.8	17.6	18.1
Tennessee	13.7	8.9	11.0	10.1	8.3	8.7	18.9	—	18.6
Texas	10.0	9.7	9.5	8.7	8.9	8.6	17.0	18.1	15.9
Virginia	12.6	10.6	11.1	9.6	8.5	9.0	18.7	19.3	18.0
West Virginia	12.3	10.9	10.2	10.3	10.6	9.6	—	—	—
United States	11.0	10.2	10.4	9.1	9.2	8.9	18.5	17.6	18.0

[1]Deaths per 1,000 live births.

SOURCE: National Center for Health Statistics.

TABLE 2.11

Neonatal Mortality Rates[1], by Race, for Urban and Rural Areas, 1986

	All Races			White			Black		
	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall
Alabama	10.8	8.5	9.1	6.3	7.4	6.9	15.6	11.1	13.4
Arkansas	7.2	5.9	5.7	6.5	5.3	5.3	—	—	7.3
Delaware	—	—	8.8	—	—	7.4	—	—	13.3
District of Columbia	—	—	16.1	—	—	—	—	—	18.4
Florida	6.8	7.1	7.3	5.4	5.9	5.9	9.9	12.2	11.6
Georgia	10.2	8.3	8.5	7.2	6.4	6.5	12.2	12.6	12.4
Kentucky	6.8	7.4	6.4	6.0	7.3	6.3	—	—	7.7
Louisiana	9.5	6.2	7.8	6.9	4.7	5.9	11.7	9.0	10.7
Maryland	10.4	7.2	8.3	7.9	7.2	6.5	13.3	—	12.6
Mississippi	7.8	7.9	7.7	—	5.7	6.1	9.6	10.1	9.7
Missouri	8.2	5.5	6.8	6.7	5.4	6.0	11.9	—	11.5
North Carolina	9.5	6.6	7.7	7.5	5.1	6.2	12.8	10.6	11.5
Oklahoma	7.1	5.6	6.2	6.9	5.6	6.0	9.5	—	10.2
South Carolina	10.7	9.1	8.8	7.4	8.0	6.9	14.9	10.3	11.8
Tennessee	9.0	5.2	6.9	7.0	4.9	5.6	12.1	—	11.3
Texas	6.4	6.0	6.0	5.5	5.6	5.4	11.0	10.1	9.9
Virginia	8.9	6.4	7.5	6.6	5.0	6.0	13.5	12.3	12.5
West Virginia	8.9	7.1	6.6	7.5	6.7	6.2	—	—	—
United States	7.3	6.3	6.7	6.0	5.7	5.8	12.1	10.6	11.7

[1]Deaths per 1,000 live births.

SOURCE: National Center for Health Statistics.

PART III

Maternal and Child Health Programs

Low-income families without private health insurance have few sources of care available to them except for publicly supported programs. For millions of children and pregnant women, federally funded programs such as Medicaid, Community and Migrant Health Centers, and services offered by state and local health agencies funded in part by the Title V Maternal and Child Health Services Block Grant, the Special Supplemental Food Program for Women, Infants, and Children (WIC), and the federal immunization grants program are the chief or exclusive means of access to decent health care.

Family income also is an essential component of family health. Without adequate income, families cannot provide for good nutrition, needed medical care, adequate clothing, safe shelter, and other necessities. At a time when more than one out of five southern children is poor, income supports are essential.

Aid to Families with Dependent Children (AFDC)

For the 3.7 million recipient families nationally, the AFDC program barely provides a basic floor of decency. The southern states provide particularly low income support levels for their poor children. All 18 southern states had January 1989 payment levels that were less than 50 percent of the federal poverty guideline (Table 3.1).

Alabama's payment of $118 per month and Mississippi's $120 per month for a family of three, which are about 14 percent of the federal poverty level, were the lowest in the region and the country. Moreover, the extremely low payment levels in the South compared with the rest of the country are reflected in the fact that only two southern states, the District of Columbia and Maryland, had payment levels that met or exceeded the national median of $360 per month for a family of three, which is 43.9 percent of the federal poverty level. The median payment for the southern region was only $258 per month for a family of three, which is 30.7 percent of the federal poverty level.

States have the option of extending AFDC benefits (with the federal government sharing the cost) to pregnant women who have no dependent children and therefore cannot receive AFDC as caretaker relatives, beginning in the seventh month of pregnancy. This type of support provides pregnant women with income to pay for basic necessities such as housing and utilities, transportation to prenatal care visits, and the special costs related to pregnancy such as more nutritious food, vitamin supplements, and maternity clothing. In 1988 only seven southern states used this option to provide income support to the poorest pregnant women.

States also have the option of extending coverage under AFDC to two-parent families where parents are unemployed (called AFDC-UP), but only six southern states do so.

In the 12 southern states without AFDC-UP programs, intact families, even if they have no income at all, can at best get help through limited general assistance programs financed at the state or local level. More often, however, poor children in these intact families are denied any cash assistance as well as health coverage under Medicaid.

TABLE 3.1

AFDC Program Characteristics, January 1989

State	Maximum Monthly Benefit for a Family of Three[1]		Coverage Options	
	Payment per Month	As a Percent of the Poverty Level	Pregnant Women After Sixth Month of Pregnancy	Two-Parent Unemployed Families
Alabama	$118	14.1%	No	No
Arkansas	$204	24.3%	No	No
Delaware	$333	39.7%	Yes	Yes
District of Columbia	$393	46.9%	Yes	Yes
Florida	$287	34.2%	Yes	No
Georgia	$270	32.2%	No	No
Kentucky	$218	26.0%	No	No
Louisiana	$190	22.7%	Yes	No
Maryland	$377	45.0%	Yes	Yes
Mississippi	$120	14.3%	No	No
Missouri	$285	34.0%	No	Yes
North Carolina	$266	31.7%	Yes	No
Oklahoma	$325	38.8%	No	No
South Carolina	$206	24.6%	No	Yes
Tennessee	$173	20.6%	Yes	No
Texas	$184	21.9%	No	No
Virginia	$354	42.2%	No	No
West Virginia	$249	29.7%	No	Yes
			7	6
Southern Median	$258	30.7%		
United States Median	$360	42.9%		

[1]These levels apply to one-parent families of three. In most states these benefit amounts also apply to two-parent families of three where the second parent is incapacitated or unemployed (a minority of AFDC families). Some states, however, increase benefits for such families. In states with area differentials, figure shown is for area with highest benefit.

SOURCE: Congressional Research Service.

Medicaid

Medicaid is the primary health care financing program for low-income children and pregnant women. In 1987 more than 11 million children younger than 18 received services paid for by Medicaid.[10] Medicaid paid for maternity care for approximately 500,000 births that year.[11]

For more than two decades, Medicaid has been a crucial source of health care coverage for low-income families. However, prior to the mid-1980s Medicaid's eligibility for pregnant women and children was closely linked to eligibility for AFDC, with its highly restrictive financial and categorical eligibility rules. This tie to a program that excludes nearly all poor children living in two-parent families and where financial eligibility criteria averages about 45 percent of the federal poverty level nationally (and only 30 percent in the southern region) meant that nationally most states' Medicaid programs served only about half all poor children and an even smaller proportion of pregnant women.

However, because of recent federal and state expansions of the Medicaid program, its importance as a financer of maternal and child health services is growing. The program, if states were to use all expansion options, is now capable of serving two-thirds of all uninsured pregnant women and infants and one-third of all uninsured children younger than 18.

In an effort to improve maternal and child health among low-income families, Congress has enacted a series of Medicaid improvements. The largest have been in expanded eligibility. The improvements:

- Permit states to extend coverage to all "financially needy" children younger than 18 with family incomes below the AFDC financial eligibility level, but who do not receive AFDC for nonfinancial reasons (Table 3.2, Column A).

TABLE 3.2

State Response to Medicaid Expansion Options for Children and Pregnant Women, June 1989[1]

	Expanded Financial Eligibility					Other Eligibility and Benefit Options for Pregnant Women and Infants		
	Children Over Age One			Pregnant Women and Infants				
	All Financially Needy Children Younger Than 18 (A)	Up to 100% of the Federal Poverty Level (B)	Current Maximum Age for Children Under 100% Poverty[2] (C)	Above 100% of the Federal Poverty Level (D)	Maximum-Income Eligibility Level as a Percent of Poverty (E)	Waives Asset Test (F)	Continuous Eligibility (G)	Presumptive Eligibility (H)
Alabama	No	No	—	No	100%	Yes	Yes	Yes
Arkansas	Yes	Yes	6	No	100%	Yes	Yes	Yes
Delaware	No	Yes	3(8)	No	100%	Yes	Yes	No
District of Columbia	Yes	Yes	3	No	100%	Yes	Yes	No
Florida	Yes	Yes	6(8)	Yes	150%	Yes	Yes	Yes
Georgia	Yes	Yes	3(5)	No	100%	Yes	Yes	No
Kentucky	Yes	Yes	2	Yes	125%	Yes	Yes	No
Louisiana	No	Yes	6(8)	No	100%	Yes	Yes	Yes
Maryland	Yes	Yes	2	Yes	185%	Yes	Yes	Yes
Mississippi	Yes	Yes	5	Yes	185%	Yes	Yes	No
Missouri	Yes	Yes	3(5)	No	100%	No	Yes	No
North Carolina	Yes	Yes	6(7)	Yes	150%	Yes	Yes	Yes
Oklahoma	Yes	Yes	2	No	100%	Yes	No	Yes
South Carolina	Yes	Yes	6	Yes	185%	Yes	Yes	No
Tennessee	Yes	Yes	6	No	100%	Yes	Yes	Yes
Texas	Yes	Yes	4(5)	Yes	130%	No	Yes	Yes
Virginia	No	Yes	2	No	100%	Yes	Yes	No
West Virginia	No	Yes	6(8)	Yes	150%	Yes	Yes	No
	—	—		—		—	—	—
	13	17		8		16	17	9

[1]Reflects all authorized expansions effective by January 1, 1990.

[2]Number in parantheses indicates eventual age limit in states phasing in coverage of children over age one.

SOURCE: Children's Defense Fund Survey, June 1989.

- Mandate state coverage of children born after September 30, 1983, older than one and younger than seven with family incomes below the AFDC financial eligibility level, regardless of whether they qualify for AFDC as "dependent" children (usually because both parents are in the home).
- Permit states to extend coverage to children born after September 30, 1983, older than one and younger than eight, with family incomes below 100 percent of the federal poverty level (Table 3.2, Column C).
- Mandate coverage, by July 1990, of all pregnant women and infants with family incomes below 100 percent of the federal poverty level (Table 3.2, Column B).
- Permit states to extend coverage to all pregnant women and infants with family incomes between 100 and 185 percent of the federal poverty level. States can choose any income standard above the poverty level (Table 3.2, Columns D and E).

Recent Medicaid expansions also provide states with options for simplifying and streamlining eligibility and enrollment procedures. As shown on Table 3.2, these include: eliminating consideration of assets (such as homes, cars, and income-producing property) in determining eligibility for pregnant women, infants, and young children (Column F); guaranteeing continuous Medicaid eligibility for pregnant women throughout the pregnancy and 60-day postpartum period regardless of any change in family income that might render the woman ineligible after initial eligibility (Column G); and offering "presumptive" (meaning temporary) eligibility for pregnant women whose formal applications are being considered (Column H).

This summary of states' progress in improving Medicaid programs for pregnant women, infants, and children reveals that:

TABLE 3.3

Federal Medical Assistance Percentage, FY 1989

State	Percent
Alabama	73.10
Arkansas	74.14
Delaware	52.60
District of Columbia	50.00
Florida	55.18
Georgia	62.78
Kentucky	72.89
Louisiana	71.07
Maryland	50.00
Mississippi	79.80
Missouri	59.96
North Carolina	68.01
Oklahoma	66.06
South Carolina	73.08
Tennessee	70.17
Texas	59.04
Virginia	51.20
West Virginia	76.14

SOURCE: Commerce Clearing House, *Medicare and Medicaid Guide.*

- Even with the high rate of childhood poverty in the South, and the extraordinarily low AFDC eligibility levels, five states (Alabama, Delaware, Louisiana, Virginia, and West Virginia) do not cover all "financially needy" children younger than 18 with family incomes below the AFDC financial eligibility level (Column A).
- Only eight southern states (Florida, Kentucky, Maryland, North Carolina, Mississippi, South Carolina, Texas, and West Virginia) have elected the option to extend coverage to all infants and pregnant women with family incomes above 100 percent of the federal poverty level (Column D). Of these, only Maryland, Mississippi, and South Carolina have set the income standard at the maximum level of 185 percent of the poverty level. Ten southern states do not cover any "near-poor" pregnant women and infants above 100 percent of the federal poverty level.

Even southern states with very high federal matching rates for the cost of Medicaid expenditures have not elected to use opportunities to expand Medicaid. For example, in Fiscal Year 1989 Alabama could have received more than 73 cents from the federal government for every $1.00 it spent to expand Medicaid services to potentially Medicaid eligible children and pregnant women (Table 3.3).

The Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program

The EPSDT program is a critical component of the Medicaid program. Enacted by Congress in 1967 and substantially updated on several occasions since then (most recently in 1984), EPSDT is intended to assure that all Medicaid-eligible children from birth to age 21 are covered not only for health care for acute and chronic medical problems but also for a wide range of preventive health services. Those services include regular health assessments; immunizations; vision, hearing, and dental care; and medical treatment for problems disclosed during the assessment process.

In its scope and mission, EPSDT is the most sweeping and important set of preventive child health benefits ever enacted by Congress for poor children.

Federal law requires the following services to be made available, through state EPSDT/Medicaid programs, to children with Medicaid cards:

(1) Detailed and comprehensive health examinations:

- A health and developmental history,
- An unclothed physical examination,
- Appropriate vision and hearing testing,
- Appropriate lab tests, and
- Appropriate immunizations.

(2) Dental care:

- Screening by a dentist for children beginning at age three.

(3) Diagnostic and medical treatment for conditions disclosed during the screening process:

- All services included in the state's general Medicaid plan,
- Dental treatment services,

- Diagnosis and treatment of defects in vision and hearing, including eyeglasses and hearing aids, and
- Immunizations not provided at the time of the screening.

In addition, states have the option to cover through EPSDT all necessary diagnostic and treatment services allowed even if such services are not otherwise made available to Medicaid-eligible persons. States can extend to a screened child coverage for a wide range of medical and remedial care optional under federal law, even if such services are not available to adults under the state's Medicaid program.

CDF conducted an EPSDT survey during the spring of 1989 (see Technical Notes) that covered all 50 states and the District of Columbia. Sixteen of the 18 southern states provided responses (Delaware and the District of Columbia have not yet responded to the CDF survey). Selected survey responses are provided in Table 3.4.

Eligibility for EPSDT Services and Proportion of Children Receiving Care

While Medicaid service packages vary from state to state, EPSDT is a service all state Medicaid programs must offer to eligible children. However, national data indicate that only 25 to 30 percent of all eligible children ever receive the benefits of EPSDT. This extremely low participation in a comprehensive preventive care program for children is related to several factors, including poor

TABLE 3.4

Characteristics of State EPSDT Programs, Spring 1989

State	Total EPSDT Periodic Visits Scheduled During Childhood	Permits Interperiodic EPSDT Screens	Restricts Non-EPSDT Well-Child Visits	Offers Discretionary Benefits	Conducts Enhanced Outreach Efforts
Alabama	20	Yes	Yes	Yes	No
Arkansas	20	No	Yes	Yes	Yes
Delaware	n/a	n/a	n/a	n/a	n/a
District of Columbia	n/a	n/a	n/a	n/a	n/a
Florida	20	Yes	Yes	Yes	Yes
Georgia	20	No	Yes	Yes	Yes
Kentucky	17	Yes	No	No	No
Louisiana	12	Yes	No	Yes	No
Maryland	24	Yes	No	Yes	No
Mississippi	14	No	Yes	Yes	No
Missouri	18	Yes	No	No	Yes
North Carolina	15	Yes	Yes	No	Yes
Oklahoma	5	No	No	Yes	No
South Carolina	20	No	Yes	Yes	Yes
Tennessee	18	No	Yes	No	Yes
Texas	11	Yes	Yes	No	Yes
Virginia	14	No	Yes	Yes	Yes
West Virginia	26	Yes	Yes	No	Yes

SOURCE: Children's Defense Fund Survey, Spring 1989.

outreach efforts; on-again, off-again eligibility due to moderate fluctuations in family earnings; barriers to enrollment; and policies that allow providers to bill for well-child exams outside of EPSDT.

While well-child exams are an excellent service, they are problematic if the state permits them to be substituted for EPSDT services. Some state programs permit pediatric providers to claim Medicaid reimbursement for well-child health examinations that may fall short of the content and frequency requirements of EPSDT. CDF has termed these informal Medicaid provider-reimbursement arrangements that bypass the rigorous EPSDT requirements "shadow programs." Five of the 16 southern states that responded to the survey allow such "shadow" billing (Table 3.4). In fact, Oklahoma has formalized this aspect of the program by including it in the state EPSDT plan. The state allows just five EPSDT screens from birth to age 21 (less than the number recommended by the American Academy of Pediatrics between birth and age one), but it also allows children to obtain annual well-child exams. As a result, the state has little oversight of the content or frequency of preventive health screens delivered to EPSDT eligible children, and the children screened outside the EPSDT program may not receive all of the follow-up benefits to which they would be entitled if they received an EPSDT screen.

TABLE 3.5

EPSDT Performance Indicators, 1988

State	Number of Eligibles[1]			Number of Screens Performed			Screening Ratio[2]		
	Total	Ages 0-5	Ages 6-20	Total	Ages 0-5	Ages 6-20	Total	Ages 0-5	Ages 6-20
Alabama	132,110	49,798	82,313	52,315	31,846	20,469	39.6	64.0	24.9
Arkansas	86,809	34,964	51,846	8,171	4,302	3,869	9.4	12.3	7.5
Delaware	16,977	7,608	9,370	1,481	1,228	253	8.7	16.1	2.7
District of Columbia	50,017	19,657	30,360	15,590	6,783	8,807	31.2	34.5	29.0
Florida	293,462	127,554	165,908	148,377	110,939	37,438	50.6	87.0	22.6
Georgia	229,294	90,327	138,967	103,017	63,916	39,101	44.9	70.8	28.1
Kentucky	176,313	68,209	108,105	16,611	15,011	1,600	9.4	22.0	1.5
Louisiana	221,974	88,068	133,907	74,988	56,894	18,094	33.8	64.6	13.5
Maryland	159,244	63,300	95,943	43,082	34,793	8,289	27.1	55.0	8.6
Mississippi	196,404	76,252	120,151	48,899	27,525	21,374	24.9	36.1	17.8
Missouri	157,206	66,254	90,952	30,513	24,603	5,910	19.4	37.1	6.5
North Carolina	160,166	63,280	96,886	76,079	64,676	11,403	47.5	102.2	11.8
Oklahoma	98,676	38,213	60,464	15,465	7,390	8,075	15.7	19.3	13.4
South Carolina	94,049	35,320	58,729	72,141	52,919	19,222	76.7	149.8	32.7
Tennessee	201,303	67,840	133,463	42,056	30,532	11,524	20.9	45.0	8.6
Texas	436,932	185,110	251,822	97,914	73,118	24,796	22.4	39.5	9.8
Virginia	147,811	67,175	80,636	77,002	41,598	35,404	52.1	61.9	43.9
West Virginia	98,386	35,771	62,615	47,828	30,697	17,131	48.6	85.8	27.4
Southern Region	2,957,133	1,184,700	1,772,437	971,529	678,770	292,759	32.9	57.3	16.5
United States	9,702,677	3,867,329	5,835,353	3,050,034	2,279,649	767,779	31.4	58.9	13.2

[1]Average of quarterly totals.

[2]Ratio of EPSDT screens provided per 100 eligible children. Ratio is reported as a percent on state-by-state factsheets.

SOURCE: Health Care Financing Administration.

In the southern region, only 32.9 children received an EPSDT screening examination for every 100 eligible children in 1988. This ratio is slightly better than the national average for that year of 31.4 per 100. Southern state screening ratios varied from 76.7 per 100 in South Carolina to a low of 8.7 per 100 in Delaware (Table 3.5).

Among the 18 southern states, 10 states (Arkansas, Delaware, the District of Columbia, Kentucky, Maryland, Mississippi, Missouri, Oklahoma, Tennessee, and Texas) had screening rates below the national average for children younger than six. The ratio of the number of screens performed to the number of EPSDT eligible children was over 100 percent in North and South Carolina. The success of the EPSDT program for young children in these and other states above the national average is directly related to the presence of comprehensive statewide maternal and infant health programs. West Virginia, Florida, and Georgia also had very high screening ratios.

In contrast, no state has a comprehensive health program for older children and adolescents. Consequently, utilization rates for these children are greatly depressed. The highest screening ratio in the South for children ages six to 20 was 43.9 per 100 in Virginia (compared with 13.2 per 100 nationally). Seven southern states had screening ratios below 10 per 100 for older children in 1988. Kentucky's EPSDT program performed just 1,600 screens during 1988 although the state had more than 108,000 eligible children between ages six and 20. Delaware screened just 253 older children during all of 1988.

Better outreach efforts to bring children into EPSDT is critical. Most states only inform parents about the program during the Medicaid application process and in an annual informing letter. Informing during the application process is frequently inadequate. Few families respond to an offer of preventive health care during times of crisis, such as those that generally precipitate entry into public assistance programs. One-third of the southern states reported performing no other outreach activities (Table 3.4).

Several states have chosen a relatively effective and inexpensive outreach method. These states use the EPSDT subsystem in their Medicaid Management Information System to generate a letter every time a child is due for a screen or dental examination. In addition, if a child due for a screen does not register a billing within a period of time, another letter is generated. While not as effective as more traditional public health outreach efforts, these automated systems appear to make a difference in EPSDT performance indicators.

Low EPSDT screening rates are particularly troublesome since only the poorest children are covered by Medicaid in the South. For example, even with the recent expansion options, children older than one in Alabama must be in families with incomes of less than 14.1 percent of the federal poverty level to be eligible for Medicaid coverage. Alabama's screening ratio in 1988 for children ages six to 20 was less than 25 per 100 eligibles. Thus for southern states the low Medicaid eligibility levels coupled with low EPSDT participation rates lead to fewer poor children receiving preventive health services. Inadequate access to care in turn often leads to higher rates of illness, increased number of bed days due to acute or chronic conditions, and reduced health status (Table 2.6).

Periodic Screening Services

EPSDT assessment services must be offered to children at appropriate ages and various developmental stages. States are required to have in place schedules that specify the number of screening visits children can obtain at periodic intervals throughout childhood. These schedules, known as "periodicity schedules," must meet reasonable standards of medical and dental practice.

The Guidelines for Health Supervision of the American Academy of Pediatrics (AAP) are widely recognized as establishing a minimum appropriate

level of periodic exams (although experts specify that this schedule that provides for 20 visits from birth to age 21 is designed for children in excellent health). Similarly, a reasonable EPSDT dental examination schedule would require at least annual exams for all children older than three (although the American Academy of Pediatric Dentistry recommends exams every six months).

Despite the fact that schedules for screening visits are designed to represent minimum standards for well children and fewer southern children are in excellent health than the national average, only seven of the 16 southern states that responded to the CDF survey had periodicity schedules that matched or exceeded the 20 visits recommended by the AAP from birth to age 21 (Table 3.4). Five southern states (Louisiana, Mississippi, Oklahoma, Texas, and Virginia) have periodicity schedules offering fewer than 15 visits. Oklahoma allows only five EPSDT screens between birth and age 21. Screening exams during adolescence are the most restricted. Texas, Mississippi, and Oklahoma allow only one visit between the ages of 13 and 21. Such infrequent exam schedules for older children are grossly inadequate to respond to the enormous physical and emotional changes during this period.

Children in the South are not receiving sufficient amounts of preventive care, as shown by the findings that fewer southern children have routine physical examinations, vision examinations, and dental visits than children in all other regions of the country (Table 2.7). Restrictive Medicaid eligibility for poor children in the South renders a crucial program such as EPSDT less useful than it otherwise might be. EPSDT's utility is further undermined by the southern states' lack of implementation of its potential benefits.

Scope of Benefits

No southern state (and no state nationally) has elected to include EPSDT coverage of all services and treatment allowed under federal law.

Ten (Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, Oklahoma, South Carolina, and Virginia) of the 16 southern states surveyed by CDF offer one or more enhanced diagnostic and treatment benefits for children through EPSDT (Table 3.4). Most of the benefits offered by these states are very limited items, such as increased number of allowable inpatient hospital days and additional durable medical equipment for the sickest children. South Carolina offers case management for emotionally disturbed children and expanded benefits for technology-dependent children. However, states tend not to offer additional primary care and preventive services for children.

Title V Maternal and Child Health Block Grant Program

For more than 50 years, the Title V programs have served low-income and medically fragile mothers and children. Currently, each year the program provides prenatal and postpartum care for hundreds of thousands of low-income pregnant women, serves as a source of primary and preventive care for millions of low-income children, and delivers a wide range of needed services to children with special health care needs.

Yet funding levels for the Title V Maternal and Child Health (MCH) Block Grant program have been so low that fewer than half of all states are able to offer comprehensive prenatal care on a statewide basis. Only a handful of states are able to commit scarce Title V resources to the cost of hospital delivery services. In addition, no state is able to offer comprehensive primary pediatric health services on a statewide basis.

In the southern region, states traditionally have used a substantial portion of MCH Block Grant funds to provide maternal and child health services in county health department clinics. In recent years many southern states have used state-appropriated funds to supplement block grant dollars. As a result, on the whole, the southern states are more likely to deliver more prenatal, well-child, and other health visits to low-income families in publicly funded clinics than states in other regions.

The number of pregnant women receiving prenatal care services using MCH Block Grant funds in the South ranged from 1,032 in the District of Columbia to 77,429 in Texas (Table 3.6).

TABLE 3.6

Pregnant Women and Children Served by the Title V Maternal and Child Health Block Grant, FY 1987

State	Number of Pregnant Women Receiving Prenatal Care	Percent of Births Served by MCH	Number of Children Receiving Primary Care Services	Percent of Age-Eligible Children Served by MCH
Alabama	20,172	33.9%	72,752	16.2%
Arkansas	8,726	25.4%	36,930	4.8%
Delaware	1,779	18.0%	13,378	6.7%
District of Columbia	1,032	10.7%	19,000	9.5%
Florida	43,081	25.7%	447,917	n/a
Georgia	11,033	11.2%	409,341	19.7%
Kentucky	12,874	24.9%	23,954	6.2%
Louisiana	17,539	22.5%	135,721	8.6%
Maryland	n/a	n/a	n/a	n/a
Mississipp	17,290	41.9%	55,794	6.0%
Missouri	8,069	10.9%	54,142	3.7%
North Carolina	28,741	31.9%	117,593	6.2%
Oklahoma	5,214	10.3%	15,435	1.3%
South Carolina	22,865	44.1%	171,576	14.2%
Tennessee	14,195	21.5%	22,787	1.2%
Texas	77,429	25.7%	158,411	2.7%
Virginia	16,500	18.9%	n/a	n/a
West Virginia	5,282	23.7%	74,053	11.8%

SOURCE: Association of Maternal and Child Health Programs, *Caring for Mothers and Children*, March 1989.

Community and Migrant Health Centers

The federal health centers programs provide grants to underserved communities to develop comprehensive medical clinics. Of the more than 5 million persons served nationally by approximately 600 health centers in 1988, two-thirds were women of childbearing age and children. However, another 20 million eligible persons—the majority of whom were women of childbearing age and children—remained unserved. Insufficient federal funds restrict the development of comprehensive health centers in more of our nation's medically underserved communities. There are 247 health centers located in the southern states (Table

3.7). Approximately 831 health manpower shortage areas remained unserved by health centers in the southern states in 1988.

Community and Migrant Health Center patients accounted for 10 percent of all births among low-income women in the United States in 1987. In that year, Congress appropriated $20 million to allow for the enhancement of health centers' capacity to serve pregnant women and infants and thereby reduce infant mortality. This funding was sufficient only to improve the delivery of perinatal services in less than 40 percent of all centers nationwide. Even among centers funded, grant amounts were equal to approximately one-third of the request per center. In the southern region, 83 project initiatives were funded (Table 3.6). This leaves 164 health centers in the South without needed support for infant mortality reduction activities.

TABLE 3.7

Community Health Center Perinatal Grantees, 1989

State	Number of Perinatal Grantees	Total Number of Community Health Centers
Alabama	8	17
Arkansas	1	8
Delaware	1	2
District of Columbia	0	2
Florida	7	28
Georgia	2	16
Kentucky	5	8
Louisiana	1	4
Maryland	8	8
Mississippi	3	21
Missouri	4	14
North Carolina	7	19
Oklahoma	3	4
South Carolina	4	15
Tennessee	3	16
Texas	14	28
Virginia	5	16
West Virginia	7	21

SOURCE: National Association of Community Health Centers.

Special Supplemental Food Program for Women, Infants, and Children (WIC)

The Special Supplemental Food Program for Women, Infants, and Children (WIC) provides food, nutrition education, and counseling and health care to pregnant and postpartum women, infants, and children. Federal funds have increased over the past few years so that more women, infants, and children are served. However, nationally less than 50 percent of eligible women and children received WIC services in 1988.

The percentage of eligibles served by the WIC program in the southern states ranged from almost 70 percent in Mississippi to 42 percent in Oklahoma. To serve greater numbers of women, infants, and children, several states now supplement the WIC program with state resources. The two southern states that provide supplemental state funding for WIC are the District of Columbia and Texas (Table 4.14d).

A number of southern states also have implemented competitive bidding for infant formula contracts to make WIC benefits available to more women and children. For example, competitive bidding introduced in Texas in 1988 saves $1.00 a can on the price the state pays for infant formula; the savings will enable the state to serve 80,000 additional needy residents annually.

Early Intervention Program

Research over the past decade has demonstrated that early intervention services, in the form of medical, therapeutic, nutritional, educational, and family support services provided during the first three years of life, can reduce the incidence of or the negative impact of developmental delays and handicaps. [12] In 1986 under Public Law 99-457, the amendments to the Education for All Handicapped Children Act, a national infant and toddler early intervention program was established. The program offers states five years of federal planning funds to set up comprehensive, statewide interagency programs to provide early intervention services to children younger than three with or at risk of developmental delays, and to their families. States begin their third year of planning in October 1989. In states that decide to continue receiving federal Part H funds after October 1, 1991, early intervention services will become an entitlement for the infants and toddlers the state elects to serve.

Under federal law, two groups of children must be included in states' programs. They are individuals from birth to age two, inclusive, who need early intervention services because they:

- "Are experiencing developmental delays, as measured by appropriate diagnostic instruments and procedure in one or more of the following areas: cognitive development, physical development, language and speech development, psychosocial development, or self-help skills, or
- Have a diagnosed physical or mental condition which has a high probability of resulting in developmental delay."[13]

In addition, at a state's discretion the term "handicapped" may also include infants and toddlers "who are at risk of having substantial developmental delays if early intervention services are not provided." This permits states to serve infants and toddlers who do not yet have a disability but who risk developing one if intervention is not made.

Many infants and toddlers meet the definition of "at risk" and a decade of research suggests that they can benefit substantially from early intervention.

To date, only two southern states, Virginia and West Virginia, have decided to use the option of serving this third category of "at-risk children." In those states, the definition of "at risk" has been adopted by their state Interagency Coordinating Councils (ICC) during this planning phase (Table 3.8). Sixteen southern states are either undecided or have made the decision not to include these children, despite the evidence that at-risk children, including those who are in need of services because of social and environmental conditions, will benefit from the provision of early intervention services. Children born to teen mothers might fall into this category, as would many children born significantly premature or at very low birthweight. Other conditions might include suspected child abuse

TABLE 3.8

Early Intervention Program for Infants and Toddlers, 1989

State	Lead Agency	State ICC Has Adopted "At-Risk" Definition
Alabama	Dept. of Education/C.C.S	Undecided
Arkansas	Dept. of Human Services	Undecided
Delaware	Dept. of Public Instruction	Undecided
District of Columbia	Dept. of Human Services	No
Florida	Dept. of Education	No
Georgia	Dept. of Human Resources	Undecided
Kentucky	Dept. of Human Resources	Undecided
Louisiana	Dept. of Education	Undecided
Maryland	Governor's Office	Undecided
Mississippi	Dept. of Health	No
Missouri	Dept. of Education	Undecided
North Carolina	Dept. of Human Resources	Undecided
Oklahoma	Dept. of Education	No
South Carolina	Dept. of Health	Undecided
Tennessee	Dept. of Education	Undecided
Texas	Interagency Council	No
Virginia	Dept. of Mental Retardation, Mental Health and Substance Abuse	Yes
West Virginia	Dept. of Health	Yes

SOURCE: Children's Defense Fund Survey, June 1989.

or neglect, a family history of neglect and abuse or substance abuse, parental psychiatric history, or children who suffer from economic disadvantage in combination with some other risks.

For example, West Virginia's "at-risk" eligibility definition includes children with physical and social factors in their environment that pose a potential threat to their optimal development. These factors include, but are not limited to, the following: maternal HIV positive status, parental substance abuse, mental retardation or psychological disorder, children whose families are under treatment for child abuse or neglect, or whose parent(s), regular caregiver, or professional service provider has significant concerns regarding their development.

Findings indicate that southern family poverty puts children at risk of environmental and social conditions which may lead to a developmental delay if early interventions are not made.

Recommendations

Ensuring that all children are born healthy and continue to receive the comprehensive health care they need to grow into thriving, productive adults must be one of the nation's highest priorities. For children living in the South the need for comprehensive strategies and programs is particularly compelling because of the higher level of poverty (and its attendant risks) that confront children. Given the complex set of factors (medical, nutritional, economic, and social) that affect a child's health status, no single set of interventions can guarantee good child health. However, we know a remarkable amount about how to build healthy

families and children, particularly when it comes to designing comprehensive medical care systems. Moreover, we know all too well the human and financial consequences of failing to invest in health care for infants and children:

- Children whose mothers have failed to receive proper nutrition during pregnancy are more likely to be born at low birthweight. Every $1.00 spent to feed a pregnant woman or child through the WIC program can save $3.00. Children who fail to receive proper nutrition after birth are more likely to suffer from a range of consequences, including failure to thrive and physical and mental disabilities and delays.
- Children born to mothers who receive no prenatal care are three times more likely to be born at low birthweight. Every $1.00 spent on prenatal care can save more than $3.00.
- Low-birthweight infants are 40 times more likely to die during the first 28 days of life, 20 times more likely to die in the first year of life, and are at increased risk for such permanent disabilities as retardation, cerebral palsy, and vision and learning disabilities.
- Far too many children are born in the United States each year in need of intensive care. Such care is both effective and cost-effective for the vast majority of infants who require it. Pregnant women and children who fail to receive appropriate and specialized hospital care during delivery and infancy face an increased risk of death. It has been estimated that if all children were delivered in institutions equipped to deal with high-risk births, the infant mortality rate could drop by an additional 20 percent. The incidence of severe permanent disabilities also would be reduced significantly.
- Children who are not adequately immunized are at increased risk for preventable illness and death. Every $1.00 spent to immunize a child can save between $10.00 and $14.00 in reduced medical and hospital care.
- Children who receive comprehensive primary health care have annual health care costs 10 percent lower than children who do not receive such care. Yet despite advances in coverage through Medicaid of infants and young children, the majority of poor children in the South have no public insurance coverage.

In light of the effectiveness of health care for children, we make a broad array of state-level recommendations designed to provide insurance for children, make health care more available to the children who need it most, and promote high-quality care in medically underserved areas. In a region such as the South, whose resources are relatively modest, states simply cannot afford not to make these types of investments.

Aid to Families with Dependent Children

- Increase AFDC payment levels and extend coverage of AFDC to two-parent families where parents are unemployed, by funding AFDC-Unemployed Parent (AFDC-UP) programs.

Medicaid

Expanding Eligibility

All states should take all coverage options available to them under the Medicaid program. Children, who are nearly 50 percent of all Medicaid recipients, consume less than 15 percent of all Medicaid expenditures. Medicaid coverage for

them is such a wise investment that expansion of benefits for maternal and child health care should be viewed not only as a critical priority for children but as a Medicaid cost containment strategy.

- It is particularly important that each and every state give coverage to all pregnant women, infants, and children for whom federal financial participation is available (pregnant women and infants with family incomes below 185 percent of poverty level, children ages one to eight with family incomes below the poverty level, and eight- to 21-year-olds with incomes below AFDC levels).
- All states should guarantee continuous Medicaid coverage for women during pregnancy until 60 days following the end of pregnancy. A common problem faced by Medicaid-eligible pregnant women is that a slight change in countable family income can cause them to lose eligibility and interrupt their maternity care.
- Of special importance, as well, is waiving application of any asset test in determining Medicaid eligibility for pregnant women and children. Nationally less than 5 percent of all families applying for Medicaid are denied benefits because of excess resources and, frequently, the "excess" involved may be a tiny bit of personal effects, income-producing property, or a very small amount of cash. Elimination of an asset test not only makes sense for these families but considerably reduces states' exposure to Medicaid-related error rate penalties. It also makes possible far greater coordination between the application process for Medicaid and that used for other programs, such as WIC, that do not use an asset test, creating possible administrative savings.
- Also of great importance is utilization of the Medicaid option not to count parental income when determining a pregnant adolescent's eligibility for Medicaid. All states may extend Medicaid to pregnant adolescents, regardless of whether their family incomes are low enough to qualify for coverage. Early maternity coverage for teenagers is important. Because Medicaid eligibility criteria often are so low, where near-poor parents' income is deemed to uninsured pregnant teenagers, the consequent Medicaid eligibility denial often means the teen will get late or no prenatal care.

Easing the Application Process

As Medicaid eligibility is expanded and simplified, simplification of the application process itself also becomes possible.

- Because of the importance of granting Medicaid coverage on the spot so that pregnant women can commence care, all states should use presumptive eligibility. While this is particularly crucial in communities with no publicly funded source of care or where none is available because of high patient volume or the patient's immediate need for specialized care, temporary Medicaid coverage is important in *all* areas to ensure immediate coverage for all medically necessary care.
- Additionally, all states should utilize application procedures that include mail-in applications, outstationing of eligibility workers, and widespread distribution of simplified applications for both pregnant women and children.

Expansion of Benefits

High quality, comprehensive maternity care includes a range of services outside of routine physician's exams. To ensure the most cost-effective program:

- All states should provide enhanced maternity benefits for pregnant women under Medicaid for services that are needed to treat a pregnancy or a complication of a pregnancy, even if such services (or their amount, duration, or scope) are not otherwise covered under the state Medicaid plan.

EPSDT

Additionally, all states should include within their EPSDT programs the following features:

- Four separate periodicity schedules for: health and developmental care, and vision, hearing, and dental care. Each should meet accepted standards of professional practice.
- A periodicity schedule that permits providers to place children on more frequent recall schedules (for interperiodic screening visits) if deemed appropriate to the management of a known or suspected illness or condition.
- Utilization by EPSDT providers of the developmental assessment screening tools and methods used under a state's early intervention program, so that children with a developmental delay are identified as soon as possible and referred for follow-up care.
- Inclusion within the EPSDT protocol for young children of the same nutritional screening assessment used to determine need for WIC, with referral to WIC in the event that nutritional deficiency is found.
- Elimination of "shadow" services and replacement by appropriate periodicity schedules to ensure that exams are of high quality and that children have access to all needed follow-up diagnostic and treatment care available only through the EPSDT program.
- Coverage of all medical and remedial care allowed under federal law in the case of children enrolled in the EPSDT program, regardless of whether such services are covered under a state's Medicaid plan.
- Simplified EPSDT provider claims forms to promote provider participation.
- Outreach procedures that ensure that children, particularly those identified as at high risk at the time of hospital discharge or those with known or suspected developmental delays, receive their care through EPSDT so that they can receive coverage for all medically necessary services.
- Specialized EPSDT services tailored to older children and adolescents that are available through providers with particular experience in serving such children and that emphasize adolescents' mental health, developmental, and reproductive health needs.

Provider Reimbursement

States should use provider reimbursement systems that:

- Incorporate rates for obstetrical and pediatric care that are within 15 percent of prevailing charges.
- Include substantial increments (at least up to the prevailing market rate) in the case of providers who affiliate with health centers, local health clinics, and other clinical providers that furnish health-related patient support, nutritional, and developmental services, and who participate in EPSDT.

- Provide cost-based reimbursement for local health agencies and community and migrant health centers that serve disproportionate numbers of low-income and uninsured children and are obligated under state or federal law to discount all or a portion of their charge in the case of uninsured and low-income patients. It is particularly important, given the limited funding for these programs, that Medicaid pay at least the full cost of care used by its patients, since clinics' other financial resources are needed to defray the cost of caring for the uninsured and since such clinics offer specialized health-related care frequently unavailable through private physicians.

Publicly Funded Health Care Providers

Federal funding available to develop Community and Migrant Health Centers, family planning programs, and local public health clinics is seriously inadequate. While Medicaid reimbursement can provide much-needed operating funds, these programs will continue to need sizable direct grants to care for uninsured children, pregnant women, and other family members (particularly in states with a high volume of undocumented individuals and families).

- All states should invest sufficient state funding in grants to local health agencies and health centers to supplement federal funds and permit the development of affordable clinical services in all communities where there are either no physicians or where available physician involvement in publicly funded programs is inadequate.

Moreover, since all low-income women and children are in particular need of not only medical care but a host of related health and patient-support services, these providers are a critical complement to the work of physicians even in non-medically underserved communities.

Health Manpower

A health manpower crisis is looming on the horizon for poor communities. In 1981 Congress and President Reagan terminated the National Health Service Corps (NHSC) scholarship program, which was mobilizing more than 6,000 health professionals to work in medically underserved areas. The pipeline for NHSC professionals now is running dry. As the supply of physicians and other health professionals under the NHSC dwindles over the next five years, state programs to develop sufficient numbers of health professionals and state medical practice laws that permit full utilization of all appropriate personnel grow in importance:

- States should fund programs for graduate medical education scholarship and loan assistance for third- and fourth-year medical students who have chosen a primary care field. All states should include service payback requirements like those in the National Health Service Corps, as well as requirements for Medicare and Medicaid participation during the payback period and affiliation with clinical providers in underserved areas to which physicians are assigned.
- Such loan and scholarship assistance should be extended to nurse-midwives and nurse-practitioners, dentists, nutritionists, and other allied professionals. Medical practice laws should permit mid-level practitioners to fully practice their profession, and physicians who provide back-up assistance to such practitioners should receive incremental reimbursement under the Medicaid program.
- As a condition of licensure, all hospitals should be required to grant admitting privileges for delivery services to both family practitioners and nurse-midwives.

Medical Malpractice

A common misperception among some providers is that Medicaid recipients sue more often than the general population. Studies done to date by the General Accounting Office (GAO) and others demonstrate that Medicaid recipients are not more likely to sue than the general population. But the malpractice crisis coupled with the Medicaid program's low fees, administrative red tape, unstable and interrupted recipient eligibility, slow payments, and lack of coverage of an adequate range of benefits all have taken their toll on providers' willingness to participate in Medicaid.

Several approaches that combine malpractice assistance with health service are possible to address provider participation:

- States could provide direct malpractice protection (either picking up a portion of settlement costs or acting as a reinsurer) for physicians who agree to treat Medicaid-eligible and medically indigent patients. Texas and Indiana provide such relief, and Texas conditions such relief on service to Medicaid and low-income patients.
- States could extend malpractice coverage under their own state tort claims acts to physicians who accept Medicaid patients and who provide services in affiliation with local health clinics, as Missouri has done.
- States could establish alternative recovery systems in the event of injury or death arising from certain events (such as delivery and newborn practice) and limit coverage under such a plan to physicians who accept low-income and Medicaid patients. Virginia has enacted such a program.
- States could supplement providers' malpractice premiums in exchange for certain service requirements.

Nutrition

All states should use competitive bidding to lower per-recipient costs and should provide sufficient state funds to supplement federal funds so that all eligible women, infants, and children are served.

Immunization

All states should design and implement systems to reach more infants and toddlers with immunizations and track their immunization status. Outreach and surveillance techniques are essential to ensuring that 90 percent of two-year-olds have received the basic package of immunizations.

Basic Health Insurance Reform

Comprehensive programs that guarantee health care coverage for all residents are being examined by a number of states. Notably, Maine, Massachusetts, and Hawaii have enacted comprehensive health insurance programs to improve health care access in their states. Other states, such as Michigan, Washington State, and Wisconsin, are piloting programs that can furnish such coverage. National estimates of uninsured Americans younger than 65 range from 31 million to 37 million and children account for about one-third of this group.

- In addition to taking full advantage of the Medicaid expansions described above, southern states should consider options for enactment of comprehensive health plans that ensure coverage for all uninsured families. If a statewide program that insures all of a states' population is not now possible, resources could be targeted first at low-income families.
- Statewide comprehensive health plans should be structured so that benefit packages include coverage for essential maternal and child health services. For example, covered services should include: prenatal and postpartum care for pregnant women; and preventive and primary care services for children, including comprehensive examinations such as those provided through EPSDT, immunizations, and prescription medications.
- In addition, cost-sharing requirements should not impose financial burdens beyond the means of low-income families. Poor families should be exempt from cost-sharing requirements, and near-poor families' costs should be nominal.

Establishment of comprehensive state health insurance plans is a first step toward ensuring access to health care for all Americans.

PART IV

State Fact Sheets, Ranking Tables, and Trend Tables

ALABAMA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.0%	11.9%	11.8%	8.0%
Percentage of babies born to women who began prenatal care in the first trimester	80.6%	59.0%	59.3%	73.2%
Percentage of all births that were to women younger than 20	13.7%	24.9%	24.4%	17.4%
Infant mortality rate (deaths per 1,000 live births)	9.8	20.0	19.8	13.3

Poverty

Estimated average child poverty rate, 1983 to 1987: 31.7%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

46.5%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education/C.C.S) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

17 community and migrant health centers in FY 1987,

8 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

20,172 pregnant women received prenatal care

72,752 children received primary care services

ALABAMA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	□	■
• All poor children age 1–7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	□	■

Eligibility level as a percent of poverty for older children:

14.1%

Expenditures per child recipient (1987):

$340

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	■	□

• Percentage of children younger than 21 with reported EPSDT screen in 1988 (Nation 31.4%)

39.6%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$118

• As a percent of the monthly federal poverty guideline for three ($807.50):

14.1%

ARKANSAS

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.3%	12.0%	11.7%	7.6%
Percentage of babies born to women who began prenatal care in the first trimester	74.6%	52.7%	53.3%	69.5%
Percentage of all births that were to women younger than 20	15.9%	29.3%	28.5%	19.0%
Infant mortality rate (deaths per 1,000 live births)	8.9	15.3	14.7	10.3

Poverty

Estimated average child poverty rate, 1983 to 1987: 29.0%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

44.6%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Human Services) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

8 community and migrant health centers in FY 1987,

1 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

8,726 pregnant women received prenatal care

36,930 children received primary care services

ARKANSAS

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1-7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

24.3%

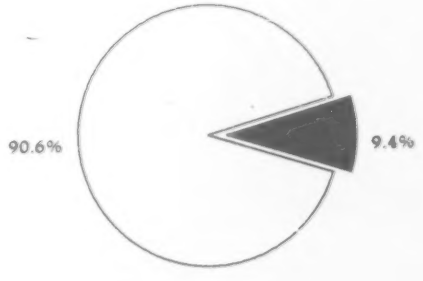
Expenditures per child recipient (1937):

$634

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	☐
• Additional diagnostic and treatment services to children participating in EPSDT	■	☐
• All covered preventive services through the EPSDT program	■	☐



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

9.4%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	☐	■
• Two-parent unemployed families	☐	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$204

• As a percent of the monthly federal poverty guideline for three ($807.50):

24.3%

DELAWARE

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.0%	12.1%	11.7%	7.4%
Percentage of babies born to women who began prenatal care in the first trimester	83.0%	63.0%	63.8%	78.2%
Percentage of all births that were to women younger than 20	9.3%	25.6%	24.4%	13.2%
Infant mortality rate (deaths per 1,000 live births)	9.6	17.6	17.0	11.5

Poverty

Estimated average child poverty rate, 1983 to 1987: 15.3%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

50.9%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Public Instruction) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

2 community and migrant health centers in FY 1987,

1 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

1,779 pregnant women received prenatal care

13,378 children received primary care services

DELAWARE

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	□	■
• All poor children age 1–7	■	□
• All children younger than 18 who meet AFDC financial eligibility requirements	□	■

Eligibility level as a percent of poverty for older children:

39.7%

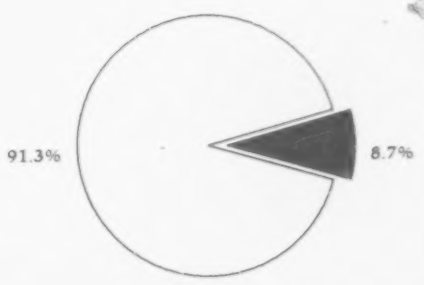
Expenditures per child recipient (1987):

$489

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	N/A	
• Additional diagnostic and treatment services to children participating in EPSDT	N/A	
• All covered preventive services through the EPSDT program	N/A	



• Percentage of children younger than 21 with reported EPSDT screen in 1988 (Nation 31.4%)

8.7%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	□
• Two-parent unemployed families	■	□

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$333

• As a percent of the monthly federal poverty guideline for three ($807.50):

39.7%

DISTRICT OF COLUMBIA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.0%	14.2%	13.6%	12.2%
Percentage of babies born to women who began prenatal care in the first trimester	79.3%	56.0%	55.4%	59.3%
Percentage of all births that were to women younger than 20	4.5%	20.1%	19.5%	17.0%
Infant mortality rate (deaths per 1,000 live births)	--	24.0	22.6	21.1

Poverty

Estimated average child poverty rate, 1983 to 1987: 31.3%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

66.3%

	Yes	No
The state supplements federal WIC funds:	■	□

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Human Services) plans to serve infants and toddlers:

	Yes	No
• With disability	■	□
• With probable disability	■	□
• At risk of disability	□	■

Community Health Centers' Infant Mortality Initiative

Of the state's

2 community and migrant health centers in FY 1987,

0 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

1,032 pregnant women received prenatal care

19,000 children received primary care services

DISTRICT OF COLUMBIA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1–7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

46.9%

Expenditures per child recipient (1987):

$368

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	N/A	
• Additional diagnostic and treatment services to children participating in EPSDT	N/A	
• All covered preventive services through the EPSDT program	N/A	

• Percentage of children younger than 21 with reported EPSDT screen in 1988 (Nation 31.4%)

31.2%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	☐
• Two-parent unemployed families	■	☐

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$393

• As a percent of the monthly federal poverty guideline for three ($807.50):

46.9%

FLORIDA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.0%	12.7%	12.4%	7.6%
Percentage of babies born to women who began prenatal care in the first trimester	74.1%	50.5%	51.6%	68.4%
Percentage of all births that were to women younger than 20	10.6%	24.0%	23.0%	13.8%
Infant mortality rate (deaths per 1,000 live births)	8.8	18.2	17.4	11.0

Poverty

Estimated average child poverty rate, 1983 to 1987: 21.1%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

46.7%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	☐	■

Community Health Centers' Infant Mortality Initiative

Of the state's

28 community and migrant health centers in FY 1987,

7 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

43,081 pregnant women received prenatal care

447,917 children received primary care services

FLORIDA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1-7	■	□
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

34.2%

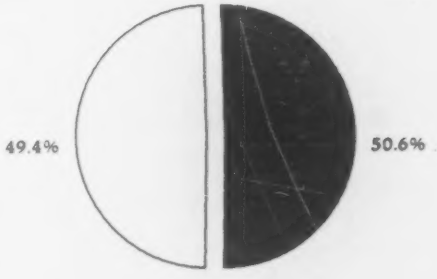
Expenditures per child recipient (1987):

$352

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

50.6%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	□
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$287

• As a percent of the monthly federal poverty guideline for three ($807.50):

34.2%

GEORGIA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.0%	12.1%	11.9%	8.1%
Percentage of babies born to women who began prenatal care in the first trimester	80.2%	61.1%	61.5%	73.5%
Percentage of all births that were to women younger than 20	13.6%	23.8%	23.2%	17.0%
Infant mortality rate (deaths per 1,000 live births)	9.4	18.4	17.9	12.5

Poverty

Estimated average child poverty rate, 1983 to 1987: 24.2%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

59.5%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Human Resources) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

16 community and migrant health centers in FY 1987,

2 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

11,033 pregnant women received prenatal care

409,341 children received primary care services

GEORGIA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	□	■
• All poor children age 1–7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

32.2%

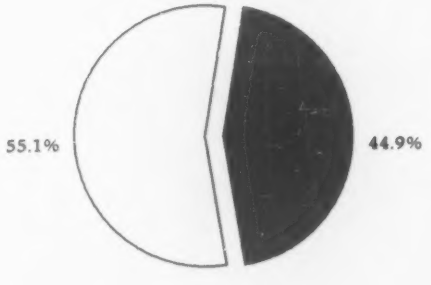
Expenditures per child recipient (1987):

$424

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

44.9%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$270

• As a percent of the monthly federal poverty guideline for three ($807.50):

32.2%

KENTUCKY

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.5%	12.5%	12.1%	7.1%
Percentage of babies born to women who began prenatal care in the first trimester	77.0%	62.9%	63.5%	75.6%
Percentage of all births that were to women younger than 20	16.7%	25.2%	23.7%	17.4%
Infant mortality rate (deaths per 1,000 live births)	9.6	12.7	12.2	9.8

Poverty

Estimated average child poverty rate, 1983 to 1987: 23.6%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

49.6%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Human Resources) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

8 community and migrant health centers in FY 1987,

5 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

12,874 pregnant women received prenatal care

23,954 children received primary care services

KENTUCKY

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1–7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

26.0%

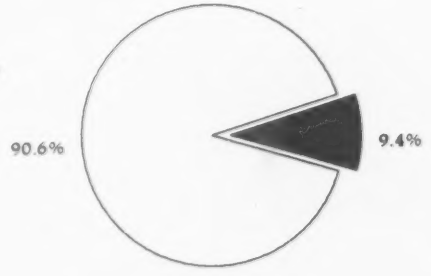
Expenditures per child recipient (1987):

$348

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	□	■
• Additional diagnostic and treatment services to children participating in EPSDT	□	■
• All covered preventive services through the EPSDT program	□	■



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

9.4%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$218

• As a percent of the monthly federal poverty guideline for three ($807.50):

26.0%

LOUISIANA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.8%	12.9%	12.6%	8.6%
Percentage of babies born to women who began prenatal care in the first trimester	85.9%	67.6%	68.1%	78.6%
Percentage of all births that were to women younger than 20	12.4%	23.8%	23.0%	16.8%
Infant mortality rate (deaths per 1,000 live births)	8.7	17.0	16.5	11.9

Poverty

Estimated average child poverty rate, 1983 to 1987: 30.6%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

57.9%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

4 community and migrant health centers in FY 1987,

1 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

17,539 pregnant women received prenatal care

135,721 children received primary care services

LOUISIANA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1-7	■	☐
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

22.7%

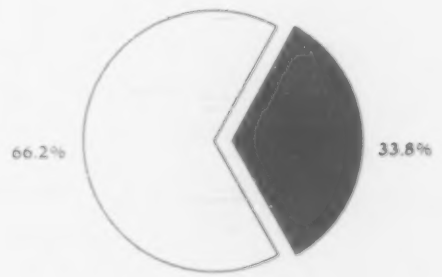
Expenditures per child recipient (1987):

$509

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	☐	■
• Additional diagnostic and treatment services to children participating in EPSDT	■	☐
• All covered preventive services through the EPSDT program	☐	■



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

33.8%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	☐
• Two-parent unemployed families	☐	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$190

• As a percent of the monthly federal poverty guideline for three ($807.50):

22.7%

MARYLAND

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.5%	12.6%	12.0%	7.7%
Percentage of babies born to women who began prenatal care in the first trimester	86.4%	66.9%	68.2%	80.3%
Percentage of all births that were to women younger than 20	8.1%	20.4%	18.8%	11.7%
Infant mortality rate (deaths per 1,000 live births)	9.5	17.3	16.1	11.7

Poverty

Estimated average child poverty rate, 1983 to 1987: 13.0%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

47.4%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Gov.'s Office on Children and Youth) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

8 community and migrant health centers in FY 1987,

8 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

N/A pregnant women received prenatal care

N/A children received primary care services

MARYLAND

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1-7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

45.0%

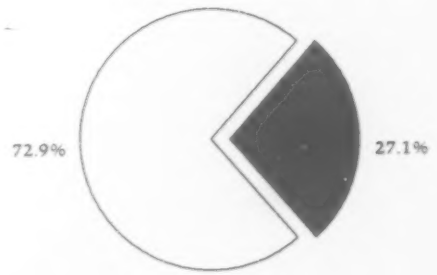
Expenditures per child recipient (1987):

$720

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	□	■



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

27.1%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	□
• Two-parent unemployed families	■	□

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$377

• As a percent of the monthly federal poverty guideline for three ($807.50):

45.0%

MISSISSIPPI

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.0%	11.7%	11.6%	8.7%
Percentage of babies born to women who began prenatal care in the first trimester	84.9%	65.9%	66.0%	76.0%
Percentage of all births that were to women younger than 20	14.1%	28.0%	27.7%	20.5%
Infant mortality rate (deaths per 1,000 live births)	9.0	16.2	16.2	12.4

Poverty

Estimated average child poverty rate, 1983 to 1987: 34.3%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

66.7%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Health) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	☐	■

Community Health Centers' Infant Mortality Initiative

Of the state's

21 community and migrant health centers in FY 1987,

3 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

17,290 pregnant women received prenatal care

55,794 children received primary care services

MISSISSIPPI

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1-7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

43.9%

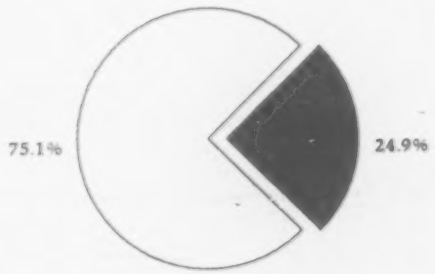
Expenditures per child recipient (1987):

$302

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	□	■
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

24.9%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$120

• As a percent of the monthly federal poverty guideline for three ($807.50):

14.3%

MISSOURI

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.7%	12.6%	12.2%	6.8%
Percentage of babies born to women who began prenatal care in the first trimester	82.3%	67.9%	68.4%	80.0%
Percentage of all births that were to women younger than 20	11.2%	25.7%	24.4%	13.4%
Infant mortality rate (deaths per 1,000 live births)	9.3	18.5	17.6	10.7

Poverty

Estimated average child poverty rate, 1983 to 1987: 20.5%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

42.2%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

14 community and migrant health centers in FY 1987,

4 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

8,069 pregnant women received prenatal care

54,142 children received primary care services

MISSOURI

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1–7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

34.0%

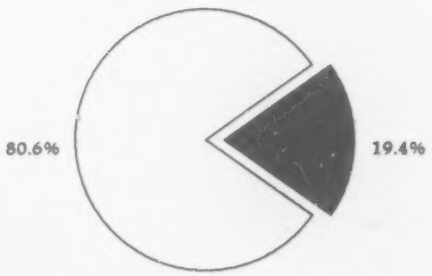
Expenditures per child recipient (1987):

$439

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	☐	■
• Additional diagnostic and treatment services to children participating in EPSDT	☐	■
• All covered preventive services through the EPSDT program	☐	■



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

19.4%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	☐	■
• Two-parent unemployed families	■	☐

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$285

• As a percent of the monthly federal poverty guideline for three ($807.50):

34.0%

NORTH CAROLINA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.1%	12.2%	11.8%	7.9%
Percentage of babies born to women who began prenatal care in the first trimester	83.9%	63.5%	64.1%	77.7%
Percentage of all births that were to women younger than 20	12.5%	24.1%	23.4%	15.9%
Infant mortality rate (deaths per 1,000 live births)	9.2	17.4	16.6	11.5

Poverty

Estimated average child poverty rate, 1983 to 1987: 19.5%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

52.5%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Human Resources) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

19 community and migrant health centers in FY 1987,

7 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

28,741 pregnant women received prenatal care

117,593 children received primary care services

NORTH CAROLINA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1–7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

31.7%

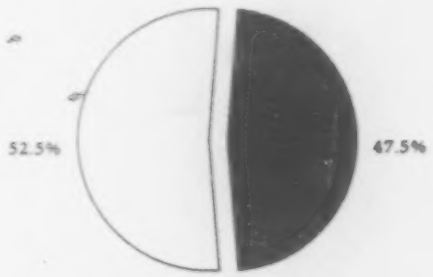
Expenditures per child recipient (1987):

$573

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	□	■
• Additional diagnostic and treatment services to children participating in EPSDT	□	■
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

47.5%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	□
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$266

• As a percent of the monthly federal poverty guideline for three ($807.50):

31.7%

OKLAHOMA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.9%	11.4%	8.5%	6.5%
Percentage of babies born to women who began prenatal care in the first trimester	75.6%	56.8%	57.3%	71.5%
Percentage of all births that were to women younger than 20	13.8%	23.3%	22.0%	15.6%
Infant mortality rate (deaths per 1,000 live births)	10.1	17.3	11.4	10.4

Poverty

Estimated average child poverty rate, 1983 to 1987: 21.0%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

41.9%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	☐	■

Community Health Centers' Infant Mortality Initiative

Of the state's

4 community and migrant health centers in FY 1987,

3 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

5,214 pregnant women received prenatal care

15,435 children received primary care services

OKLAHOMA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1–7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

56.2%

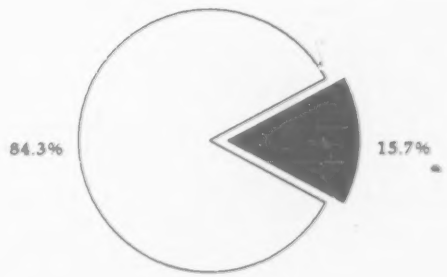
Expenditures per child recipient (1987):

$689

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	☐	■
• Additional diagnostic and treatment services to children participating in EPSDT	■	☐
• All covered preventive services through the EPSDT program	☐	■



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

15.7%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	☐	■
• Two-parent unemployed families	☐	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$325

• As a percent of the monthly federal poverty guideline for three ($807.50):

38.8%

SOUTH CAROLINA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.1%	12.4%	12.3%	8.6%
Percentage of babies born to women who began prenatal care in the first trimester	76.5%	53.0%	53.3%	67.3%
Percentage of all births that were to women younger than 20	12.4%	23.4%	23.0%	16.6%
Infant mortality rate (deaths per 1,000 live births)	10.1	18.1	17.9	13.2

Poverty

Estimated average child poverty rate, 1983 to 1987: 23.5%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

60.7%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Health) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

15 community and migrant health centers in FY 1987,

4 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

22,865 pregnant women received prenatal care

171,576 children received primary care services

SOUTH CAROLINA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1-7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

48.1%

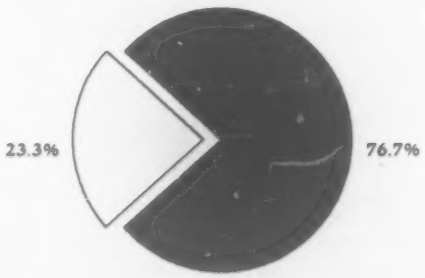
Expenditures per child recipient (1987):

$285

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	■	□
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

76.7%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	■	□

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$206

• As a percent of the monthly federal poverty guideline for three ($807.50):

24.6%

TENNESSEE

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.5%	12.6%	12.4%	7.9%
Percentage of babies born to women who began prenatal care in the first trimester	78.7%	64.0%	64.3%	75.2%
Percentage of all births that were to women younger than 20	14.6%	25.2%	24.6%	17.0%
Infant mortality rate (deaths per 1,000 live births)	8.7	18.6	18.3	11.0

Poverty

Estimated average child poverty rate, 1983 to 1987: 25.2%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

53.1%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Education) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	Undecided	

Community Health Centers' Infant Mortality Initiative

Of the state's

16 community and migrant health centers in FY 1987,

3 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

14,195 pregnant women received prenatal care

22,787 children received primary care services

TENNESSEE

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1–7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	☐

Eligibility level as a percent of poverty for older children:

43.5%

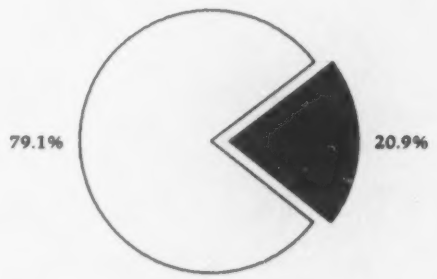
Expenditures per child recipient (1987):

$713

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	☐	■
• Additional diagnostic and treatment services to children participating in EPSDT	☐	■
• All covered preventive services through the EPSDT program	■	☐



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

20.9%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	■	☐
• Two-parent unemployed families	☐	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$173

• As a percent of the monthly federal poverty guideline for three ($807.50):

20.6%

TEXAS

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.9%	12.3%	11.6%	6.8%
Percentage of babies born to women who began prenatal care in the first trimester	68.4%	56.4%	58.4%	66.8%
Percentage of all births that were to women younger than 20	14.1%	23.6%	21.0%	15.2%
Infant mortality rate (deaths per 1,000 live births)	8.6	15.9	14.3	9.5

Poverty

Estimated average child poverty rate, 1983 to 1987: 23.3%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

43.1%

	Yes	No
The state supplements federal WIC funds:	■	□

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Interagency Council) plans to serve infants and toddlers:

	Yes	No
• With disability	■	□
• With probable disability	■	□
• At risk of disability	□	■

Community Health Centers' Infant Mortality Initiative

Of the state's

28 community and migrant health centers in FY 1987,

14 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

77,429 pregnant women received prenatal care

158,411 children received primary care services

TEXAS

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1–7	□	■
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

21.9%

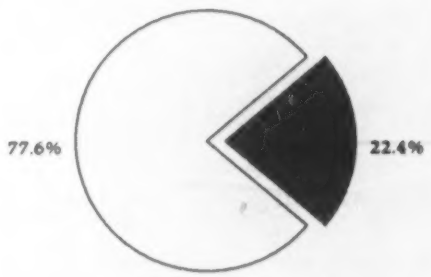
Expenditures per child recipient (1987):

$468

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	□	■
• Additional diagnostic and treatment services to children participating in EPSDT	□	■
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

22.4%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	□	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$184

• As a percent of the monthly federal poverty guideline for three ($807.50):

21.9%

VIRGINIA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	5.6%	11.3%	10.9%	7.0%
Percentage of babies born to women who began prenatal care in the first trimester	84.3%	68.1%	68.9%	80.1%
Percentage of all births that were to women younger than 20	9.2%	21.5%	19.5%	12.0%
Infant mortality rate (deaths per 1,000 live births)	9.0	18.0	16.7	11.1

Poverty

Estimated average child poverty rate, 1983 to 1987: 14.9%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

47.0%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of MR/MH/SA)* plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	■	☐

Community Health Centers' Infant Mortality Initiative

Of the state's

16 community and migrant health centers in FY 1987,

5 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

16,500 pregnant women received prenatal care

N/A children received primary care services

*Mental Retardation/Mental Health/Substance Abuse

VIRGINIA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	☐	■
• All poor children age 1–7	☐	■
• All children younger than 18 who meet AFDC financial eligibility requirements	☐	■

Eligibility level as a percent of poverty for older children:

42.2%

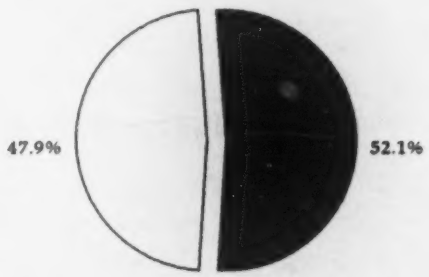
Expenditures per child recipient (1987):

$383

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	☐	■
• Additional diagnostic and treatment services to children participating in EPSDT	■	☐
• All covered preventive services through the EPSDT program	■	☐



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

52.1%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	☐	■
• Two-parent unemployed families	☐	■

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$354

• As a percent of the monthly federal poverty guideline for three ($807.50):

42.2%

WEST VIRGINIA

Vital Statistics, 1986

Births, Prenatal Care, Infant Mortality	White	Nonwhite		Total
		Black	Total	
Percentage of births that were low birthweight	6.8%	11.8%	11.3%	7.0%
Percentage of babies born to women who began prenatal care in the first trimester	71.3%	54.2%	55.6%	70.6%
Percentage of all births that were to women younger than 20	17.0%	21.2%	19.5%	17.1%
Infant mortality rate (deaths per 1,000 live births)	9.6	—	—	10.2

Poverty

Estimated average child poverty rate, 1983 to 1987: 30.4%

Health Programs to Serve Pregnant Women and Children

WIC Coverage

Women and children served using federal funds as a percentage of the eligible population:

49.0%

	Yes	No
The state supplements federal WIC funds:	☐	■

Early Intervention Services

The lead agency for the early intervention program under P.L. 99-457 (Dept. of Health) plans to serve infants and toddlers:

	Yes	No
• With disability	■	☐
• With probable disability	■	☐
• At risk of disability	■	☐

Community Health Centers' Infant Mortality Initiative

Of the state's

21 community and migrant health centers in FY 1987,

7 received funds for enhanced infant mortality prevention efforts.

Title V Maternal and Child Health Programs

Using Title V funds, in 1987:

5,282 pregnant women received prenatal care

74,053 children received primary care services

WEST VIRGINIA

Medicaid, EPSDT, and AFDC

Medicaid Coverage of Pregnant Women and Children

Benefits provided to:	Yes	No
• Pregnant women and infants with incomes above the federal poverty level	■	□
• All poor children age 1–7	■	□
• All children younger than 18 who meet AFDC financial eligibility requirements	■	□

Eligibility level as a percent of poverty for older children:

29.7%

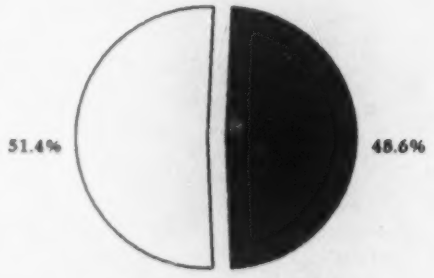
Expenditures per child recipient (1987):

$393

EPSDT

The EPSDT program is designed to ensure that all Medicaid-eligible children younger than 21 receive preventive and primary health care.

The state provides:	Yes	No
• A schedule for medical visits that meets professionals' recommended standards	■	□
• Additional diagnostic and treatment services to children participating in EPSDT	□	■
• All covered preventive services through the EPSDT program	■	□



• Percentage of children younger than 21 with reported EPSDT screen in 1988: (Nation 31.4%)

48.6%

AFDC Coverage Standards

Cash benefits are provided to:	Yes	No
• Pregnant women, with no other children, from the sixth month of pregnancy or later	□	■
• Two-parent unemployed families	■	□

AFDC Financial Standards

AFDC maximum monthly benefit level for a family of three:

$249

• As a percent of the monthly federal poverty guideline for three ($807.50):

29.7%

TABLE 4.1A

Infant Mortality Rate, All Races, 1986

Rank	State	Rate
1	Texas	9.5
2	Kentucky	9.8
3	West Virginia	10.2
4	Arkansas	10.3
5	Oklahoma	10.4
6	Missouri	10.7
7	Tennessee	11.0
8	Florida	11.0
9	Virginia	11.1
10	Delaware	11.5
11	North Carolina	11.5
12	Maryland	11.7
13	Louisiana	11.9
14	Mississippi	12.4
15	Georgia	12.5
16	South Carolina	13.2
17	Alabama	13.3
18	District of Columbia	21.1
	United States	10.4

TABLE 4.1B

Infant Mortality Rate, White, 1986

Rank	State	Rate
1	Texas	8.6
2	Tennessee	8.7
3	Louisiana	8.7
4	Florida	8.8
5	Arkansas	8.9
6	Virginia	9.0
7	Mississippi	9.0
8	North Carolina	9.2
9	Missouri	9.3
10	Georgia	9.4
11	Maryland	9.5
12	Delaware	9.6
13	Kentucky	9.6
14	West Virginia	9.6
15	Alabama	9.8
16	South Carolina	10.1
17	Oklahoma	10.1
	United States	8.9

TABLE 4.1C

Infant Mortality Rate, Black, 1986

Rank	State	Rate
1	Kentucky	12.7
2	Arkansas	15.3
3	Texas	15.9
4	Mississippi	16.2
5	Louisiana	17.0
6	Maryland	17.3
7	Oklahoma	17.3
8	North Carolina	17.4
9	Delaware	17.6
10	Virginia	18.0
11	South Carolina	18.1
12	Florida	18.2
13	Georgia	18.4
14	Missouri	18.5
15	Tennessee	18.6
16	Alabama	20.0
17	District of Columbia	24.0
	United States	18.0

TABLE 4.1D

Infant Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Oklahoma	11.4
2	Kentucky	12.2
3	Texas	14.3
4	Arkansas	14.7
5	Maryland	16.1
6	Mississippi	16.2
7	Louisiana	16.5
8	North Carolina	16.6
9	Virginia	16.7
10	Delaware	17.0
11	Florida	17.4
12	Missouri	17.6
13	South Carolina	17.9
14	Georgia	17.9
15	Tennessee	18.3
16	Alabama	19.8
17	District of Columbia	22.6
	United States	15.7

TABLE 4.2A

Neonatal Mortality Rate, All Races, 1986

Rank	State	Rate
1	Arkansas	5.7
2	Texas	6.0
3	Oklahoma	6.2
4	Kentucky	6.4
5	West Virginia	6.6
6	Missouri	6.8
7	Tennessee	6.9
8	Florida	7.3
9	Virginia	7.5
10	North Carolina	7.7
11	Mississippi	7.7
12	Louisiana	7.8
13	Maryland	8.3
14	Georgia	8.5
15	South Carolina	8.8
16	Delaware	8.8
17	Alabama	9.1
18	District of Columbia	16.1
	United States	6.7

TABLE 4.2B

Neonatal Mortality Rate, White, 1986

Rank	State	Rate
1	Arkansas	5.3
2	Texas	5.4
3	Tennessee	5.6
4	Louisiana	5.9
5	Florida	5.9
6	Missouri	6.0
7	Virginia	6.0
8	Oklahoma	6.0
9	Mississippi	6.1
10	West Virginia	6.2
11	North Carolina	6.2
12	Kentucky	6.3
13	Georgia	6.5
14	Maryland	6.5
15	Alabama	6.9
16	South Carolina	6.9
17	Delaware	7.4
	United States	5.8

TABLE 4.2C

Neonatal Mortality Rate, Black, 1986

Rank	State	Rate
1	Arkansas	7.3
2	Kentucky	7.7
3	Mississippi	9.7
4	Texas	9.9
5	Oklahoma	10.2
6	Louisiana	10.7
7	Tennessee	11.3
8	North Carolina	11.5
9	Missouri	11.5
10	Florida	11.6
11	South Carolina	11.8
12	Georgia	12.4
13	Virginia	12.5
14	Maryland	12.6
15	Delaware	13.3
16	Alabama	13.4
17	District of Columbia	18.4
	United States	11.7

TABLE 4.2D

Neonatal Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Oklahoma	6.7
2	Arkansas	7.1
3	Kentucky	7.3
4	Texas	9.0
5	Mississippi	9.6
6	Louisiana	10.3
7	North Carolina	10.8
8	Missouri	10.9
9	Tennessee	11.1
10	Florida	11.1
11	Virginia	11.5
12	South Carolina	11.7
13	Maryland	11.8
14	Georgia	12.1
15	Delaware	13.0
16	Alabama	13.2
17	District of Columbia	17.3
	United States	10.1

TABLE 4.3A

Postneonatal Mortality Rate, All Races, 1986

Rank	State	Rate
1	Maryland	3.5
2	Kentucky	3.5
3	Texas	3.5
4	Virginia	3.6
5	West Virginia	3.6
6	Florida	3.7
7	North Carolina	3.9
8	Missouri	3.9
9	Georgia	4.0
10	Tennessee	4.1
11	Louisiana	4.1
12	Alabama	4.2
13	Oklahoma	4.2
14	South Carolina	4.4
15	Arkansas	4.6
16	Mississippi	4.6
17	District of Columbia	5.0
	United States	3.6

TABLE 4.3B

Postneonatal Mortality Rate, White, 1986

Rank	State	Rate
1	Louisiana	2.7
2	Florida	2.8
3	Mississippi	2.9
4	Alabama	2.9
5	Georgia	2.9
6	Maryland	3.0
7	North Carolina	3.0
8	Virginia	3.0
9	Tennessee	3.1
10	Texas	3.2
11	South Carolina	3.2
12	Kentucky	3.3
13	Missouri	3.3
14	West Virginia	3.5
15	Arkansas	3.6
16	Oklahoma	4.1
	United States	3.1

TABLE 4.3C

Postneonatal Mortality Rate, Black, 1986

Rank	State	Rate
1	Maryland	4.7
2	Virginia	5.5
3	District of Columbia	5.6
4	Georgia	5.9
5	Texas	5.9
6	North Carolina	6.0
7	Louisiana	6.3
8	South Carolina	6.3
9	Florida	6.5
10	Mississippi	6.6
11	Alabama	6.7
12	Missouri	7.0
13	Oklahoma	7.1
14	Tennessee	7.2
15	Arkansas	8.0
	United States	6.3

TABLE 4.3D

Postneonatal Mortality Rate, Nonwhite, 1986

Rank	State	Rate
1	Maryland	4.3
2	Oklahoma	4.7
3	Virginia	5.2
4	Texas	5.4
5	District of Columbia	5.4
6	Georgia	5.8
7	North Carolina	5.8
8	Louisiana	6.1
9	South Carolina	6.2
10	Florida	6.3
11	Alabama	6.5
12	Mississippi	6.6
13	Missouri	6.6
14	Tennessee	7.2
15	Arkansas	7.7
	United States	5.6

TABLE 4.4A

Percentage of Infants Born at Low Birthweight, All Races, 1986

Rank	State	Percent
1	Oklahoma	6.5
2	Missouri	6.8
3	Texas	6.8
4	West Virginia	7.0
5	Virginia	7.0
6	Kentucky	7.1
7	Delaware	7.4
8	Florida	7.6
9	Arkansas	7.6
10	Maryland	7.7
11	North Carolina	7.9
12	Tennessee	7.9
13	Alabama	8.0
14	Georgia	8.1
15	South Carolina	8.6
16	Louisiana	8.6
17	Mississippi	8.7
18	District of Columbia	12.2
	United States	6.8

TABLE 4.4B

Percentage of Infants Born at Low Birthweight, White, 1986

Rank	State	Percent
1	District of Columbia	5.0
2	Maryland	5.5
3	Virginia	5.6
4	Missouri	5.7
5	Louisiana	5.8
6	Texas	5.9
7	Oklahoma	5.9
8	Florida	6.0
9	Georgia	6.0
10	Delaware	6.0
11	Alabama	6.0
12	Mississippi	6.0
13	South Carolina	6.1
14	North Carolina	6.1
15	Arkansas	6.3
16	Tennessee	6.5
17	Kentucky	6.5
18	West Virginia	6.8
	United States	5.6

TABLE 4.4C

Percentage of Infants Born at Low Birthweight, Black, 1986

Rank	State	Percent
1	Virginia	11.3
2	Oklahoma	11.4
3	Mississippi	11.7
4	West Virginia	11.8
5	Alabama	11.9
6	Arkansas	12.0
7	Delaware	12.1
8	Georgia	12.1
9	North Carolina	12.2
10	Texas	12.3
11	South Carolina	12.4
12	Kentucky	12.5
13	Missouri	12.6
14	Tennessee	12.6
15	Maryland	12.6
16	Florida	12.7
17	Louisiana	12.9
18	District of Columbia	14.2
	United States	12.5

TABLE 4.4D

Percentage of Infants Born at Low Birthweight, Nonwhite, 1986

Rank	State	Percent
1	Oklahoma	8.5
2	Virginia	10.9
3	West Virginia	11.3
4	Texas	11.6
5	Mississippi	11.6
6	Delaware	11.7
7	Arkansas	11.7
8	Alabama	11.8
9	North Carolina	11.8
10	Georgia	11.9
11	Maryland	12.0
12	Kentucky	12.1
13	Missouri	12.2
14	South Carolina	12.3
15	Florida	12.4
16	Tennessee	12.4
17	Louisiana	12.6
18	District of Columbia	13.6
	United States	11.2

TABLE 4.5A

Percentage of Infants Born to Women Receiving Early Prenatal Care, All Races, 1986

Rank	State	Percent
1	Maryland	80.3
2	Virginia	80.1
3	Missouri	80.0
4	Louisiana	78.6
5	Delaware	78.2
6	North Carolina	77.7
7	Mississippi	76.0
8	Kentucky	75.6
9	Tennessee	75.2
10	Georgia	73.5
11	Alabama	73.2
12	Oklahoma	71.5
13	West Virginia	70.6
14	Arkansas	69.5
15	Florida	68.4
16	South Carolina	67.3
17	Texas	66.8
18	District of Columbia	59.3
	United States	75.9

TABLE 4.5B

Percentage of Infants Born to Women Receiving Early Prenatal Care, White, 1986

Rank	State	Percent
1	Maryland	86.4
2	Louisiana	85.9
3	Mississippi	84.9
4	Virginia	84.3
5	North Carolina	83.9
6	Delaware	83.0
7	Missouri	82.3
8	Alabama	80.6
9	Georgia	80.2
10	District of Columbia	79.3
11	Tennessee	78.7
12	Kentucky	77.0
13	South Carolina	76.5
14	Oklahoma	75.6
15	Arkansas	74.6
16	Florida	74.1
17	West Virginia	71.3
18	Texas	68.4
	United States	79.2

TABLE 4.5C

Percentage of Infants Born to Women Receiving Early Prenatal Care, Black, 1986

Rank	State	Percent
1	Virginia	68.1
2	Missouri	67.9
3	Louisiana	67.6
4	Maryland	66.9
5	Mississippi	65.9
6	Tennessee	64.0
7	North Carolina	63.5
8	Delaware	63.0
9	Kentucky	62.9
10	Georgia	61.1
11	Alabama	59.0
12	Oklahoma	56.8
13	Texas	56.4
14	District of Columbia	56.0
15	West Virginia	54.2
16	South Carolina	53.0
17	Arkansas	52.7
18	Florida	50.5
	United States	61.6

TABLE 4.5D

Percentage of Infants Born to Women Receiving Early Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Virginia	68.9
2	Missouri	68.4
3	Maryland	68.2
4	Louisiana	68.1
5	Mississippi	66.0
6	Tennessee	64.3
7	North Carolina	64.1
8	Delaware	63.8
9	Kentucky	63.5
10	Georgia	61.5
11	Alabama	59.3
12	Texas	58.4
13	Oklahoma	57.3
14	West Virginia	55.6
15	District of Columbia	55.4
16	Arkansas	53.3
17	South Carolina	53.3
18	Florida	51.6
	United States	63.7

TABLE 4.6A

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, All Races, 1986

Rank	State	Percent
1	Delaware	3.9
2	Maryland	4.0
3	Virginia	4.0
4	Mississippi	4.1
5	Missouri	4.3
6	North Carolina	4.6
7	Louisiana	4.7
8	Kentucky	4.9
9	Tennessee	5.5
10	Georgia	6.4
11	Alabama	6.5
12	West Virginia	6.9
13	Arkansas	6.9
14	Oklahoma	7.3
15	South Carolina	8.1
16	Florida	8.6
17	District of Columbia	11.4
18	Texas	11.5
	United States	6.0

TABLE 4.6B

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, White, 1986

Rank	State	Percent
1	Maryland	2.3
2	Mississippi	2.5
3	Delaware	2.7
4	Louisiana	2.8
5	North Carolina	2.8
6	Virginia	3.1
7	Missouri	3.6
8	Tennessee	4.5
9	Kentucky	4.5
10	Alabama	4.8
11	Georgia	4.8
12	District of Columbia	4.9
13	South Carolina	5.1
14	Arkansas	5.4
15	Oklahoma	5.9
16	West Virginia	6.5
17	Florida	6.9
18	Texas	11.1
	United States	5.0

TABLE 4.6C

Percentage of Infants Born To Women Receiving Late or No Prenatal Care, Black, 1986

Rank	State	Percent
1	Mississippi	5.8
2	Virginia	6.7
3	Louisiana	7.5
4	Maryland	7.6
5	Delaware	7.6
6	Missouri	8.0
7	Kentucky	8.4
8	Tennessee	8.6
9	North Carolina	8.6
10	Georgia	9.2
11	Alabama	9.9
12	Arkansas	12.0
13	District of Columbia	12.6
14	South Carolina	12.8
15	Oklahoma	13.1
16	Texas	14.0
17	Florida	14.1
18	West Virginia	15.3
	United States	10.6

TABLE 4.6D

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Mississippi	5.8
2	Virginia	6.5
3	Maryland	7.3
4	Delaware	7.4
5	Louisiana	7.4
6	Missouri	7.9
7	Kentucky	8.2
8	North Carolina	8.4
9	Tennessee	8.5
10	Georgia	9.1
11	Alabama	9.8
12	Arkansas	11.8
13	Oklahoma	12.3
14	South Carolina	12.6
15	District of Columbia	12.7
16	Texas	13.4
17	Florida	13.8
18	West Virginia	14.4
	United States	9.9

TABLE 4.7A

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, All Races, 1986

Rank	State	Percent
1	Maryland	75.3
2	Missouri	74.4
3	North Carolina	73.6
4	Virginia	72.8
5	Mississippi	69.4
6	Kentucky	69.0
7	Tennessee	68.3
8	Delaware	68.2
9	Georgia	67.3
10	Louisiana	66.7
11	Alabama	66.3
12	Oklahoma	62.9
13	Florida	62.0
14	West Virginia	61.9
15	Arkansas	61.7
16	Texas	57.8
17	South Carolina	57.6
18	District of Columbia	50.0
	United States	68.4

TABLE 4.7B

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, White, 1986

Rank	State	Percent
1	Maryland	82.1
2	Mississippi	80.9
3	North Carolina	80.7
4	Louisiana	78.7
5	Virginia	77.6
6	Missouri	77.4
7	Alabama	75.9
8	Georgia	74.9
9	District of Columbia	73.7
10	Delaware	73.1
11	Tennessee	73.1
12	Kentucky	70.5
13	Arkansas	68.2
14	Florida	67.8
15	Oklahoma	67.6
16	South Carolina	66.7
17	West Virginia	62.7
18	Texas	59.6
	United States	72.6

TABLE 4.7C

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, Black, 1986

Rank	State	Percent
1	Maryland	59.9
2	Virginia	59.3
3	Missouri	58.5
4	North Carolina	57.4
5	Mississippi	56.5
6	Kentucky	54.5
7	Georgia	52.9
8	Tennessee	52.6
9	Delaware	52.3
10	Louisiana	49.1
11	Alabama	47.8
12	Texas	46.9
13	Oklahoma	46.0
14	District of Columbia	45.9
15	Florida	44.0
16	South Carolina	43.2
17	West Virginia	42.7
18	Arkansas	40.2
	United States	50.6

TABLE 4.7D

Percentage of Infants Born to Women Receiving Adequate Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Maryland	61.5
2	Virginia	59.8
3	Missouri	59.1
4	North Carolina	58.1
5	Mississippi	56.6
6	Kentucky	55.0
7	Georgia	53.3
8	Delaware	53.3
9	Tennessee	53.1
10	Louisiana	49.5
11	Texas	48.7
12	Alabama	48.2
13	Oklahoma	46.2
14	District of Columbia	45.4
15	Florida	45.0
16	West Virginia	44.3
17	South Carolina	43.6
18	Arkansas	40.9
	United States	51.8

TABLE 4.8A

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, All Races, 1986

Rank	State	Percent
1	Maryland	5.0
2	Delaware	5.5
3	Virginia	5.7
4	North Carolina	5.8
5	Missouri	5.9
6	Mississippi	6.2
7	Kentucky	6.8
8	Tennessee	7.8
9	Louisiana	8.0
10	Georgia	8.4
11	West Virginia	9.3
12	Alabama	9.4
13	Arkansas	9.7
14	Oklahoma	9.8
15	South Carolina	10.9
16	Florida	10.9
17	Texas	14.9
18	District of Columbia	15.7
	United States	8.0

TABLE 4.8B

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, White, 1986

Rank	State	Percent
1	Maryland	2.9
2	Mississippi	3.1
3	North Carolina	3.5
4	Delaware	3.7
5	Virginia	4.2
6	Louisiana	4.3
7	Missouri	4.6
8	Georgia	6.0
9	Tennessee	6.1
10	District of Columbia	6.1
11	Alabama	6.1
12	Kentucky	6.3
13	South Carolina	6.6
14	Arkansas	6.9
15	Oklahoma	7.7
16	Florida	8.7
17	West Virginia	8.8
18	Texas	14.4
	United States	6.3

TABLE 4.8C

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, Black, 1986

Rank	State	Percent
1	Mississippi	9.7
2	Maryland	9.9
3	Virginia	9.9
4	North Carolina	11.1
5	Delaware	11.3
6	Kentucky	11.6
7	Missouri	12.4
8	Georgia	12.9
9	Louisiana	13.5
10	Tennessee	13.7
11	Alabama	15.9
12	South Carolina	17.6
13	District of Columbia	17.7
14	Florida	18.2
15	Texas	18.5
16	Oklahoma	18.7
17	Arkansas	19.0
18	West Virginia	22.8
	United States	15.3

TABLE 4.8D

Percentage of Infants Born to Women Receiving Inadequate Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Maryland	9.4
2	Mississippi	9.6
3	Virginia	9.8
4	North Carolina	10.9
5	Delaware	10.9
6	Kentucky	11.4
7	Missouri	12.1
8	Georgia	12.7
9	Louisiana	13.3
10	Tennessee	13.6
11	Alabama	15.7
12	Oklahoma	17.2
13	South Carolina	17.4
14	District of Columbia	17.5
15	Texas	17.6
16	Florida	17.8
17	Arkansas	18.7
18	West Virginia	21.4
	United States	14.7

TABLE 4.9A

Percentage of Infants Who Were Born to Women Under Age 20, All Races, 1986

Rank	State	Percent
1	Maryland	11.7
2	Virginia	12.0
3	Delaware	13.2
4	Missouri	13.4
5	Florida	13.8
6	Texas	15.2
7	Oklahoma	15.6
8	North Carolina	15.9
9	South Carolina	16.6
10	Louisiana	16.8
11	Tennessee	17.0
12	Georgia	17.0
13	District of Columbia	17.0
14	West Virginia	17.1
15	Alabama	17.4
16	Kentucky	17.4
17	Arkansas	19.0
18	Mississippi	20.5
	United States	12.6

TABLE 4.9B

Percentage of Infants Who Were Born to Women Under Age 20, White, 1986

Rank	State	Percent
1	District of Columbia	4.5
2	Maryland	8.1
3	Virginia	9.2
4	Delaware	9.3
5	Florida	10.6
6	Missouri	11.2
7	South Carolina	12.4
8	Louisiana	12.4
9	North Carolina	12.5
10	Georgia	13.6
11	Alabama	13.7
12	Oklahoma	13.8
13	Texas	14.1
14	Mississippi	14.1
15	Tennessee	14.6
16	Arkansas	15.9
17	Kentucky	16.7
18	West Virginia	17.0
	United States	10.6

TABLE 4.9C

Percentage of Infants Who Were Born to Women Under Age 20, Black, 1986

Rank	State	Percent
1	District of Columbia	20.1
2	Maryland	20.4
3	West Virginia	21.2
4	Virginia	21.5
5	Oklahoma	23.3
6	South Carolina	23.4
7	Texas	23.6
8	Louisiana	23.8
9	Georgia	23.8
10	Florida	24.0
11	North Carolina	24.1
12	Alabama	24.9
13	Kentucky	25.2
14	Tennessee	25.2
15	Delaware	25.6
16	Missouri	25.7
17	Mississippi	28.0
18	Arkansas	29.3
	United States	22.8

TABLE 4.9D

Percentage of Infants Who Were Born to Women Under Age 20, Nonwhite, 1986

Rank	State	Percent
1	Maryland	18.8
2	Virginia	19.5
3	District of Columbia	19.5
4	West Virginia	19.5
5	Texas	21.0
6	Oklahoma	22.0
7	Florida	23.0
8	South Carolina	23.0
9	Louisiana	23.0
10	Georgia	23.2
11	North Carolina	23.4
12	Kentucky	23.7
13	Missouri	24.4
14	Alabama	24.4
15	Delaware	24.4
16	Tennessee	24.6
17	Mississippi	27.7
18	Arkansas	28.5
	United States	19.9

TABLE 4.10A

Percentage of Births to Teens That Were Low Birthweight, All Races, 1986

Rank	State	Percent
1	Oklahoma	7.7
2	West Virginia	8.6
3	Missouri	8.6
4	Kentucky	8.9
5	Texas	9.2
6	Virginia	9.6
7	Tennessee	9.9
8	Arkansas	9.9
9	Florida	10.4
10	Alabama	10.6
11	North Carolina	10.7
12	Georgia	10.7
13	Maryland	10.7
14	Delaware	11.3
15	Mississippi	11.4
16	Louisiana	11.4
17	South Carolina	11.4
18	District of Columbia	13.0
	United States	9.4

TABLE 4.10B

Percentage of Births to Teens That Were Low Birthweight, White, 1986

Rank	State	Percent
1	Oklahoma	7.1
2	Missouri	7.3
3	Maryland	7.4
4	Louisiana	7.7
5	Florida	7.7
6	Texas	7.7
7	Virginia	7.8
8	Arkansas	7.9
9	Mississippi	8.0
10	Alabama	8.0
11	South Carolina	8.1
12	Kentucky	8.1
13	Georgia	8.1
14	Tennessee	8.2
15	North Carolina	8.3
16	West Virginia	8.4
17	Delaware	9.3
	United States	7.7

TABLE 4.10C

Percentage of Births to Teens That Were Low Birthweight, Black, 1986

Rank	State	Percent
1	Missouri	11.7
2	Oklahoma	11.8
3	Virginia	12.1
4	Tennessee	13.1
5	Alabama	13.2
6	Arkansas	13.3
7	Mississippi	13.3
8	Delaware	13.4
9	Georgia	13.5
10	District of Columbia	13.5
11	North Carolina	13.6
12	Maryland	13.8
13	Kentucky	14.0
14	Florida	14.1
15	South Carolina	14.2
16	Texas	14.2
17	Louisiana	14.4
	United States	13.3

TABLE 4.10D

Percentage of Births to Teens That Were Low Birthweight, Nonwhite, 1986

Rank	State	Percent
1	Oklahoma	8.9
2	Missouri	11.7
3	Virginia	12.0
4	Tennessee	13.1
5	Alabama	13.2
6	Arkansas	13.2
7	District of Columbia	13.3
8	Mississippi	13.3
9	North Carolina	13.4
10	Georgia	13.4
11	Delaware	13.5
12	Maryland	13.5
13	Kentucky	14.0
14	Florida	14.0
15	Texas	14.1
16	South Carolina	14.1
17	Louisiana	14.2
	United States	12.7

TABLE 4.11A

Percentage of All Low-Birthweight Infants Who Were Born to Teens, All Races, 1986

Rank	State	Percent
1	Maryland	16.4
2	Virginia	16.5
3	Missouri	17.0
4	District of Columbia	18.1
5	Oklahoma	18.4
6	Florida	18.8
7	Delaware	19.9
8	Texas	20.3
9	West Virginia	21.1
10	Tennessee	21.2
11	North Carolina	21.4
12	Kentucky	21.9
13	South Carolina	22.1
14	Louisiana	22.1
15	Georgia	22.5
16	Alabama	22.9
17	Arkansas	24.7
18	Mississippi	27.0
	United States	17.3

TABLE 4.11B

Percentage of All Low-Birthweight Infants Who Were Born to Teens, White, 1986

Rank	State	Percent
1	Maryland	11.0
2	Virginia	12.8
3	Florida	13.8
4	Missouri	14.3
5	Delaware	14.5
6	Louisiana	16.3
7	South Carolina	16.3
8	Oklahoma	16.5
9	North Carolina	16.9
10	Alabama	18.3
11	Tennessee	18.4
12	Texas	18.4
13	Georgia	18.5
14	Mississippi	18.8
15	Arkansas	20.1
16	Kentucky	20.8
17	West Virginia	21.0
	United States	14.4

TABLE 4.11C

Percentage of All Low-Birthweight Infants Who Were Born to Teens, Black, 1986

Rank	State	Percent
1	District of Columbia	19.2
2	Maryland	22.2
3	Virginia	22.8
4	Missouri	24.0
5	Oklahoma	24.1
6	Tennessee	26.2
7	Louisiana	26.4
8	Florida	26.4
9	Georgia	26.5
10	South Carolina	26.8
11	North Carolina	26.9
12	Texas	27.4
13	Alabama	27.5
14	Kentucky	28.2
15	Delaware	28.4
16	Mississippi	31.8
17	Arkansas	32.5
	United States	24.1

TABLE 4.11D

Percentage of All Low-Birthweight Infants Who Were Born to Teens, Nonwhite, 1986

Rank	State	Percent
1	District of Columbia	19.0
2	Maryland	21.1
3	Virginia	21.5
4	Oklahoma	23.1
5	Missouri	23.3
6	Texas	25.7
7	Tennessee	25.9
8	Florida	25.9
9	Louisiana	25.9
10	Georgia	26.1
11	South Carolina	26.5
12	North Carolina	26.5
13	Alabama	27.3
14	Kentucky	27.4
15	Delaware	28.0
16	Mississippi	31.6
17	Arkansas	32.1
	United States	22.6

TABLE 4.12A

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, All Races, 1986

Rank	State	Percent
1	Louisiana	62.7
2	Mississippi	60.0
3	Virginia	57.9
4	Kentucky	57.8
5	Delaware	57.4
6	Maryland	57.2
7	Missouri	56.1
8	North Carolina	55.4
9	Tennessee	54.9
10	Georgia	53.4
11	Arkansas	50.6
12	Alabama	50.4
13	Oklahoma	50.2
14	West Virginia	47.7
15	Texas	43.6
16	South Carolina	41.6
17	Florida	41.4
18	District of Columbia	37.5
	United States	53.0

TABLE 4.12B

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, White, 1986

Rank	State	Percent
1	Louisiana	69.8
2	Mississippi	69.2
3	Delaware	63.9
4	Maryland	63.7
5	Virginia	63.4
6	North Carolina	61.6
7	Georgia	60.5
8	Kentucky	59.1
9	Missouri	57.5
10	Tennessee	57.5
11	Alabama	57.4
12	Arkansas	56.9
13	Oklahoma	53.8
14	South Carolina	49.5
15	West Virginia	48.4
16	Florida	46.2
17	Texas	45.1
	United States	55.9

TABLE 4.12C

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, Black, 1986

Rank	State	Percent
1	Louisiana	57.2
2	Mississippi	54.6
3	Missouri	52.9
4	Maryland	51.5
5	Virginia	50.9
6	Delaware	50.1
7	Tennessee	50.1
8	Kentucky	49.4
9	North Carolina	47.7
10	Georgia	45.9
11	Alabama	42.9
12	Oklahoma	40.0
13	Arkansas	39.7
14	Texas	38.3
15	District of Columbia	38.0
16	West Virginia	35.9
17	South Carolina	35.1
18	Florida	34.8
	United States	46.8

TABLE 4.12D

Percentage of Infants Born to Teen Mothers Who Received Early Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Louisiana	57.2
2	Mississippi	54.7
3	Missouri	52.9
4	Maryland	51.6
5	Virginia	50.8
6	Delaware	50.1
7	Tennessee	50.0
8	Kentucky	49.5
9	North Carolina	48.2
10	Georgia	45.9
11	Alabama	43.0
12	Oklahoma	42.2
13	Arkansas	39.8
14	Texas	38.4
15	District of Columbia	37.4
16	South Carolina	35.2
17	West Virginia	35.1
18	Florida	34.9
	United States	47.1

TABLE 4.13A

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, All Races, 1986

Rank	State	Percent
1	Mississippi	7.4
2	Delaware	8.3
3	Louisiana	8.8
4	Kentucky	9.2
5	Virginia	9.3
6	Maryland	10.1
7	North Carolina	10.3
8	Missouri	10.4
9	Tennessee	10.5
10	Georgia	12.2
11	Arkansas	12.4
12	Oklahoma	13.1
13	Alabama	13.3
14	West Virginia	13.3
15	South Carolina	16.4
16	Florida	17.1
17	District of Columbia	18.9
18	Texas	20.8
	United States	12.7

TABLE 4.13B

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, White, 1986

Rank	State	Percent
1	Mississippi	5.7
2	Louisiana	6.4
3	Delaware	6.5
4	North Carolina	7.4
5	Maryland	7.6
6	Virginia	8.1
7	Kentucky	8.6
8	Tennessee	9.5
9	Missouri	9.6
10	Arkansas	10.0
11	Georgia	10.8
12	Oklahoma	11.1
13	Alabama	11.5
14	South Carolina	12.8
15	West Virginia	13.1
16	Florida	15.4
17	Texas	20.5
	United States	11.6

TABLE 4.13C

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, Black, 1986

Rank	State	Percent
1	Mississippi	8.4
2	Delaware	10.4
3	Louisiana	10.6
4	Virginia	10.8
5	Maryland	12.3
6	Tennessee	12.3
7	Missouri	12.3
8	Kentucky	12.5
9	Georgia	13.7
10	North Carolina	13.9
11	Alabama	15.1
12	Arkansas	16.5
13	West Virginia	18.5
14	District of Columbia	18.8
15	South Carolina	19.4
16	Florida	19.4
17	Oklahoma	19.5
18	Texas	21.8
	United States	15.0

TABLE 4.13D

Percentage of Infants Born to Teen Mothers Who Received Late or No Prenatal Care, Nonwhite, 1986

Rank	State	Percent
1	Mississippi	8.5
2	Delaware	10.3
3	Louisiana	10.6
4	Virginia	10.9
5	Maryland	12.2
6	Missouri	12.3
7	Tennessee	12.3
8	Kentucky	12.6
9	North Carolina	13.7
10	Georgia	13.7
11	Alabama	15.1
12	Arkansas	16.5
13	Oklahoma	17.4
14	West Virginia	18.6
15	District of Columbia	18.9
16	South Carolina	19.3
17	Florida	19.4
18	Texas	21.9
	United States	15.0

TABLE 4.14A

States' AFDC Standard of Need as a Percent of the Federal Poverty Level, 1989

Rank	State	Percent
1	Florida	96.3
2	District of Columbia	84.9
3	Arkansas	84.1
4	Louisiana	78.5
5	Texas	68.5
6	Alabama	68.1
7	North Carolina	63.5
8	Maryland	62.3
9	West Virginia	59.3
10	Oklahoma	56.2
11	South Carolina	48.1
12	Virginia	46.9
13	Georgia	44.9
14	Mississippi	43.9
15	Tennessee	43.5
16	Delaware	39.7
17	Missouri	37.2
18	Kentucky	26.0
	Southern Median	57.7
	United States Median	62.3

SOURCE: Congressional Research Service

TABLE 4.14B

AFDC Maximum Payment Levels for Families With No Other Income as a Percent of Federal Poverty Level, 1989

Rank	State	Percent
1	District of Columbia	46.9
2	Maryland	45.0
3	Virginia	42.2
4	Delaware	39.7
5	Oklahoma	38.8
6	Florida	34.2
7	Missouri	34.0
8	Georgia	32.2
9	North Carolina	31.7
10	West Virginia	29.7
11	Kentucky	26.0
12	South Carolina	24.6
13	Arkansas	24.3
14	Louisiana	22.7
15	Texas	21.9
16	Tennessee	20.6
17	Mississippi	14.3
18	Alabama	14.1
	Southern Median	30.7
	United States Median	42.9

SOURCE: Congressional Research Service

TABLE 4.14C

AFDC Payment Level as a Percent of the AFDC Standard of Need, 1989

Rank	State	Percent
1	Delaware	100.00
1	Kentucky	100.00
3	Missouri	91.3
4	Virginia	90.1
5	Maryland	72.2
6	Georgia	71.8
7	Oklahoma	69.0
8	District of Columbia	55.2
9	South Carolina	51.1
10	West Virginia	50.1
11	North Carolina	50.0
12	Tennessee	47.4
13	Florida	35.6
14	Mississippi	32.6
15	Texas	32.1
16	Arkansas	28.9
17	Louisiana	28.9
18	Alabama	20.7
	Southern Median	50.6
	United States Median	69.0

SOURCE: Congressional Research Service

TABLE 4.14D

Percentage of Eligible Population Served by WIC Program, August 1988

Rank	State	Percent
1	Mississippi	66.7
2	District of Columbia	66.3
3	South Carolina	60.7
4	Georgia	59.5
5	Louisiana	57.9
6	Tennessee	53.1
7	North Carolina	52.5
8	Delaware	50.9
9	Kentucky	49.6
10	West Virginia	49.0
11	Maryland	47.4
12	Virginia	47.0
13	Florida	46.7
14	Alabama	46.5
15	Arkansas	44.6
16	Texas	43.1
17	Missouri	42.2
18	Oklahoma	41.9
	Southern Region	49.3
	United States	49.2

SOURCE: Center for Budget and Policy Priorities

TABLE 4.14E

Estimated Average Child Poverty Rates, 1983-1987

Rank	State	Rate
1	Maryland	13.0
2	Virginia	14.9
3	Delaware	15.3
4	North Carolina	19.5
5	Missouri	20.5
6	Oklahoma	21.0
7	Florida	21.1
8	Texas	23.3
9	South Carolina	23.5
10	Kentucky	23.6
11	Georgia	24.2
12	Tennessee	25.2
13	Arkansas	29.0
14	West Virginia	30.4
15	Louisiana	30.6
16	District of Columbia	31.3
17	Alabama	31.7
18	Mississippi	34.3
	United States	20.9

TABLE 4.15A

Infant Mortality Rates, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	16.1	14.4	15.1	13.0	13.8	13.1	12.9	12.6	13.3	-17.4%
Arkansas	16.4	13.4	12.7	11.9	10.1	10.7	10.9	11.6	10.3	-37.2%
Delaware	13.2	17.0	13.9	13.4	14.1	10.0	10.8	14.8	11.5	-12.9%
District of Columbia	27.3	22.2	25.0	25.1	21.2	19.3	21.0	20.8	21.1	-22.7%
Florida	14.1	14.9	14.6	13.3	12.8	12.2	10.8	11.3	11.0	-22.0%
Georgia	15.4	15.1	14.5	13.8	12.7	13.4	12.9	12.7	12.5	-18.8%
Kentucky	12.7	11.5	12.9	12.2	12.0	11.6	11.5	11.2	9.8	-22.8%
Louisiana	17.3	15.6	14.3	13.7	13.0	13.5	12.1	11.9	11.9	-31.2%
Maryland	14.7	14.5	14.0	12.6	11.9	11.8	11.8	11.9	11.7	-20.4%
Mississippi	18.7	17.6	17.0	15.4	15.4	15.1	14.4	13.7	12.4	-33.7%
Missouri	14.8	13.7	12.4	12.6	11.7	10.7	10.4	10.2	10.7	-27.7%
North Carolina	16.6	15.1	14.5	13.1	13.7	13.2	12.4	11.8	11.5	-30.7%
Oklahoma	14.3	12.5	12.7	11.9	12.3	10.9	11.0	10.9	10.4	-27.3%
South Carolina	18.6	17.1	15.6	16.1	16.1	15.0	14.7	14.2	13.2	-29.0%
Tennessee	14.8	13.6	13.5	12.6	12.0	12.8	11.8	11.4	11.0	-25.7%
Texas	14.3	12.9	12.2	11.6	10.9	11.1	10.5	9.8	9.5	-33.6%
Virginia	13.8	14.6	13.6	12.5	12.8	11.9	12.1	11.5	11.1	-19.6%
West Virginia	15.1	13.8	11.8	13.0	11.4	10.9	11.0	10.7	10.2	-32.5%
United States	13.8	13.1	12.6	11.9	11.5	11.2	10.8	10.6	10.4	-24.6%

TABLE 4.15B

Infant Mortality Rates, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	12.1	11.4	11.6	10.2	10.3	10.3	9.7	10.4	9.8	-19.0%
Arkansas	14.3	11.4	10.3	9.8	8.0	9.1	9.2	10.9	8.9	-37.8%
Delaware	9.9	13.1	9.8	10.0	11.2	7.3	8.4	11.6	9.6	-3.0%
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	11.8	12.4	11.8	10.4	10.1	9.9	8.5	9.2	8.8	-25.4%
Georgia	11.8	11.7	10.8	10.3	9.6	9.9	10.0	9.5	9.4	-20.3%
Kentucky	12.0	10.7	12.0	11.8	11.4	11.0	10.9	10.3	9.6	-20.0%
Louisiana	12.7	12.1	10.5	10.2	9.4	9.8	8.9	8.6	8.7	-31.5%
Maryland	11.7	11.6	11.6	10.4	8.9	8.9	9.8	9.1	9.5	-18.8%
Mississippi	11.5	11.9	11.1	10.5	10.4	10.7	10.0	9.3	9.0	-21.7%
Missouri	12.2	12.1	11.1	11.7	10.1	9.2	9.0	9.0	9.3	-23.8%
North Carolina	13.0	11.2	12.1	10.7	10.8	10.5	9.9	9.4	9.2	-29.2%
Oklahoma	13.4	11.8	12.1	11.5	12.3	10.7	11.1	10.8	10.1	-24.6%
South Carolina	13.3	12.4	10.8	12.4	11.9	11.3	11.0	9.6	10.1	-24.1%
Tennessee	13.1	11.5	11.9	10.2	10.1	10.7	9.8	8.9	8.7	-33.6%
Texas	12.9	11.5	11.2	10.7	10.0	10.4	9.7	9.0	8.6	-33.3%
Virginia	11.5	12.5	11.9	10.7	10.7	9.6	9.9	9.3	9.0	-21.7%
West Virginia	14.9	13.4	11.4	12.7	11.4	10.7	10.8	10.4	9.6	-35.6%
United States	12.0	11.4	11.0	10.5	10.1	9.7	9.4	9.3	8.9	-25.8%

TABLE 4.15C

Infant Mortality Rates, Black, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	23.7	19.9	21.6	18.2	20.4	18.5	19.2	17.0	20.0	-15.6%
Arkansas	22.6	19.6	20.0	18.3	16.9	15.6	16.7	14.2	15.3	-32.3%
Delaware	23.4	30.1	27.9	24.4	23.9	17.3	19.4	25.8	17.6	-24.8%
District of Columbia	30.2	25.6	26.7	26.7	24.1	21.3	24.3	23.7	24.0	-20.5%
Florida	20.8	22.4	22.8	22.0	21.1	19.3	18.4	17.8	18.2	-12.5%
Georgia	22.1	21.4	21.0	19.9	18.2	19.8	18.5	19.0	18.4	-16.7%
Kentucky	19.9	19.9	22.0	17.1	18.3	18.1	18.4	20.5	12.7	-36.2%
Louisiana	24.6	21.2	20.6	19.9	19.2	19.9	17.4	17.2	17.0	-30.9%
Maryland	22.5	21.6	20.4	18.2	19.3	18.6	17.0	18.9	17.3	-23.1%
Mississippi	26.4	23.6	23.7	20.6	20.8	20.0	19.5	18.9	16.2	-38.6%
Missouri	29.2	23.2	20.7	18.7	20.6	19.1	18.3	17.0	18.5	-36.6%
North Carolina	24.9	24.2	20.0	19.1	20.6	19.6	18.8	17.8	17.4	-30.1%
Oklahoma	21.5	18.7	21.8	18.4	16.8	14.9	14.8	18.5	17.3	-19.5%
South Carolina	26.5	24.2	22.9	21.8	22.7	20.9	20.7	21.8	18.1	-31.7%
Tennessee	21.2	20.9	19.3	21.2	19.3	20.3	18.9	20.2	18.6	-12.3%
Texas	22.6	21.3	18.8	17.8	16.6	16.3	15.8	15.5	15.9	-29.7%
Virginia	21.7	21.3	19.8	18.8	20.1	20.0	19.6	19.2	18.0	-17.1%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	23.1	21.8	21.4	20.0	19.6	19.2	18.4	18.2	18.0	-22.1%

TABLE 4.15D

Infant Mortality Rates, Nonwhite, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	23.4	19.7	21.4	18.1	20.0	18.3	18.9	16.8	19.8	-15.4%
Arkansas	22.1	19.1	19.4	17.7	16.1	15.3	16.0	13.8	14.7	-33.5%
Delaware	23.2	29.2	26.8	23.3	23.2	17.6	18.6	24.8	17.0	-26.7%
District of Columbia	29.7	25.2	26.3	26.6	24.3	21.0	24.1	22.9	22.6	-23.9%
Florida	20.1	21.6	22.0	21.2	20.4	18.5	17.7	17.2	17.4	-13.4%
Georgia	21.5	20.9	20.7	19.6	17.9	19.5	18.2	18.5	17.9	-16.7%
Kentucky	19.1	18.7	20.3	15.9	16.9	16.5	17.3	19.7	12.2	-36.1%
Louisiana	24.3	20.8	20.3	19.3	18.7	19.3	16.9	16.7	16.5	-32.1%
Maryland	21.3	20.3	19.1	17.1	18.1	17.5	15.9	17.5	16.1	-24.4%
Mississippi	26.1	23.5	23.3	20.6	20.9	19.8	19.2	18.7	16.2	-37.9%
Missouri	28.2	22.1	19.5	17.5	19.7	18.2	17.3	16.3	17.6	-37.6%
North Carolina	23.9	23.3	19.4	18.3	19.7	19.0	17.9	17.0	16.6	-30.5%
Oklahoma	17.8	15.2	15.3	13.3	12.3	11.3	10.6	11.0	11.4	-36.0%
South Carolina	26.0	23.8	22.5	21.6	22.2	20.5	20.2	21.4	17.9	-31.2%
Tennessee	20.7	20.4	18.8	20.7	18.7	19.8	18.5	19.4	18.3	-11.6%
Texas	21.5	20.2	17.5	16.6	15.2	14.7	14.4	14.0	14.3	-33.5%
Virginia	20.1	20.1	18.4	17.5	18.7	18.3	18.3	17.6	16.7	-16.9%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	21.2	19.8	19.1	17.8	17.3	16.8	16.1	15.8	15.7	-25.9%

TABLE 4.16A

Neonatal Mortality Rates, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	11.0	9.4	9.9	8.4	9.2	8.3	8.7	8.3	9.1	-17.3%
Arkansas	10.5	8.0	7.6	7.0	5.8	6.2	6.9	7.1	5.7	-45.7%
Delaware	9.6	13.6	10.0	10.0	10.3	6.8	7.6	10.6	8.8	-8.3%
District of Columbia	20.2	17.5	18.3	19.5	15.6	14.1	16.0	15.9	16.1	-20.3%
Florida	9.3	9.9	9.8	8.9	9.0	7.7	6.9	7.4	7.3	-21.5%
Georgia	10.3	10.0	9.5	8.8	8.3	9.0	8.7	8.6	8.5	-17.5%
Kentucky	8.6	7.7	8.2	8.0	7.8	7.9	7.4	7.5	6.4	-25.6%
Louisiana	12.0	10.3	10.0	9.3	8.4	9.0	8.0	7.7	7.8	-35.0%
Maryland	11.1	10.3	10.2	9.1	8.4	8.1	8.1	8.2	8.3	-25.2%
Mississippi	12.3	11.1	11.0	10.5	10.2	9.3	9.0	8.4	7.7	-37.4%
Missouri	10.8	9.5	8.2	8.7	7.5	7.2	6.4	6.5	6.8	-37.0%
North Carolina	11.4	10.3	10.0	8.8	9.5	8.7	8.1	7.8	7.7	-32.5%
Oklahoma	9.0	8.0	8.1	7.2	7.4	6.8	7.0	6.8	6.2	-31.1%
South Carolina	12.4	11.3	10.9	10.9	10.7	9.8	9.8	10.0	8.8	-29.0%
Tennessee	10.5	9.1	9.1	8.9	8.0	8.4	8.0	7.5	6.9	-34.3%
Texas	9.8	8.6	8.2	7.6	7.0	6.9	6.6	6.2	6.0	-38.8%
Virginia	9.7	10.7	9.8	9.0	9.3	8.3	8.7	8.1	7.5	-22.7%
West Virginia	10.3	9.1	8.0	8.8	7.2	7.0	7.1	7.3	6.6	-35.9%
United States	9.5	8.9	8.5	8.0	7.7	7.3	7.0	7.0	6.7	-29.5%

TABLE 4.16B

Neonatal Mortality Rates, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	8.7	7.8	7.8	6.8	7.4	6.9	6.9	7.0	6.9	-20.7%
Arkansas	9.4	7.2	6.5	6.1	4.8	5.6	5.7	6.7	5.3	-43.6%
Delaware	6.9	9.9	6.3	7.6	8.7	4.8	6.1	8.6	7.4	7.2%
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	8.1	8.6	8.3	7.1	7.2	6.4	5.7	6.0	5.9	-27.2%
Georgia	8.2	8.2	7.5	6.6	6.5	6.8	6.6	6.6	6.5	-20.7%
Kentucky	8.0	7.2	7.8	7.6	7.4	7.7	6.9	6.8	6.3	-21.3%
Louisiana	9.4	8.4	7.3	7.0	6.3	6.6	5.9	5.9	5.9	-37.2%
Maryland	8.7	8.4	8.5	7.5	6.3	6.0	6.7	6.0	6.5	-25.3%
Mississippi	8.3	8.1	7.7	7.0	6.9	7.0	7.0	5.5	6.1	-26.5%
Missouri	9.0	8.4	7.9	8.2	6.6	6.1	5.5	5.8	6.0	-33.3%
North Carolina	9.2	8.0	8.4	7.1	7.2	7.0	6.7	6.1	6.2	-32.6%
Oklahoma	8.7	8.0	7.7	7.1	7.4	6.8	7.2	6.8	6.0	-31.0%
South Carolina	9.4	8.8	7.6	8.1	8.1	7.1	7.8	6.6	6.9	-26.6%
Tennessee	9.1	7.6	8.1	7.0	6.6	7.0	6.4	5.5	5.6	-38.5%
Texas	8.9	7.8	7.6	7.0	6.5	6.4	6.2	5.7	5.4	-39.3%
Virginia	8.0	9.3	8.4	7.6	7.6	6.4	7.2	6.5	6.0	-25.0%
West Virginia	10.1	8.8	7.8	8.6	7.1	6.9	7.0	7.0	6.2	-38.6%
United States	8.4	7.9	7.5	7.1	6.8	6.4	6.2	6.1	5.8	-31.0%

TABLE 4.16C

Neonatal Mortality Rates, Black, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	15.2	12.4	13.6	11.5	12.9	10.9	12.2	11.0	13.4	-11.8%
Arkansas	13.8	10.6	11.3	9.6	9.0	7.9	10.8	8.5	7.3	-47.1%
Delaware	17.3	25.4	22.4	18.0	16.1	—	—	17.5	13.3	-23.1%
District of Columbia	22.2	20.0	19.4	20.1	18.2	15.1	18.7	18.2	18.4	-17.1%
Florida	12.9	14.0	14.4	14.4	14.6	11.6	10.9	11.8	11.6	-10.1%
Georgia	14.2	13.4	13.1	12.7	11.7	13.2	12.7	12.7	12.4	-12.7%
Kentucky	14.4	12.9	13.6	12.5	12.3	10.9	12.5	14.2	7.7	-46.5%
Louisiana	16.1	13.4	14.5	13.3	11.9	13.0	11.6	10.7	10.7	-33.5%
Maryland	17.3	15.2	14.8	13.1	13.7	13.3	11.8	13.5	12.6	-27.2%
Mississippi	16.7	14.4	14.6	14.2	13.7	11.8	11.4	11.9	9.7	-41.9%
Missouri	20.4	16.2	12.9	12.1	12.6	13.3	11.5	10.2	11.5	-43.6%
North Carolina	16.5	15.8	13.7	12.9	15.2	12.7	11.8	12.1	11.5	-30.3%
Oklahoma	12.3	10.5	14.3	10.2	10.8	9.4	9.2	12.1	10.2	-17.1%
South Carolina	16.9	15.1	15.7	15.0	14.9	14.1	13.1	15.6	11.8	-30.2%
Tennessee	15.4	14.4	12.8	15.5	13.1	13.4	13.5	14.8	11.3	-26.6%
Texas	15.6	13.5	12.4	12.1	10.3	10.6	9.7	9.5	9.9	-36.5%
Virginia	15.6	15.3	14.7	14.0	15.0	14.8	13.6	13.6	12.5	-19.9%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	15.5	14.3	14.1	13.4	13.1	12.4	11.8	12.1	11.7	-24.5%

TABLE 4.16D

Neonatal Mortality Rates, Nonwhite, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	15.0	12.3	13.5	11.3	12.6	10.9	12.1	10.8	13.2	-12.0%
Arkansas	13.5	10.3	11.0	9.4	8.6	7.9	10.3	8.2	7.1	-47.4%
Delaware	17.3	24.7	21.5	17.3	15.8	12.6	—	17.0	13.0	-24.9%
District of Columbia	21.8	19.7	19.1	20.1	18.3	14.8	18.5	17.6	17.3	-20.6%
Florida	12.5	13.5	13.9	13.8	14.1	11.2	10.5	11.4	11.1	-11.2%
Georgia	13.8	13.1	12.9	12.5	11.5	12.9	12.5	12.3	12.1	-12.3%
Kentucky	13.7	12.1	12.5	11.6	11.5	9.9	11.8	13.6	7.3	-46.7%
Louisiana	15.9	13.2	14.2	12.9	11.7	12.6	11.2	10.4	10.3	-35.2%
Maryland	16.2	14.2	13.9	12.4	12.8	12.4	11.0	12.5	11.8	-27.2%
Mississippi	16.5	14.4	14.4	14.2	13.7	11.7	11.2	11.7	9.6	-41.8%
Missouri	19.7	15.4	12.0	11.3	12.0	12.6	11.0	10.1	10.9	-44.7%
North Carolina	15.9	15.1	13.3	12.3	14.3	12.4	11.2	11.4	10.8	-32.1%
Oklahoma	10.3	7.8	9.7	7.5	7.5	6.9	6.5	6.9	6.7	-35.0%
South Carolina	16.6	14.9	15.4	14.9	14.5	13.8	12.8	15.4	11.7	-29.5%
Tennessee	15.0	14.0	12.5	15.2	12.7	12.9	13.1	14.2	11.1	-26.0%
Texas	14.9	12.7	11.5	11.2	9.5	9.4	8.7	8.5	9.0	-39.6%
Virginia	14.5	14.5	13.7	13.0	14.0	13.6	12.8	12.4	11.5	-20.7%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	14.0	12.9	12.5	11.8	11.3	10.8	10.2	10.3	10.1	-27.9%

TABLE 4.17A

Postneonatal Mortality Rates, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	5.1	5.0	5.2	4.6	4.6	4.8	4.2	4.3	4.2	-17.6%
Arkansas	5.9	5.4	5.1	4.9	4.3	4.5	4.0	4.5	4.6	-22.0%
Delaware	3.6	3.4	3.9	3.4	3.8	—	3.2	4.2	—	—
District of Columbia	7.1	5.0	6.7	5.6	5.6	5.2	5.0	4.9	5.0	-29.6%
Florida	4.8	5.0	4.8	4.4	3.8	4.5	3.9	3.9	3.7	-22.9%
Georgia	5.2	5.1	5.0	5.0	4.4	4.4	4.2	4.1	4.0	-23.1%
Kentucky	4.1	3.8	4.7	4.2	4.2	3.7	4.2	3.7	3.5	-14.6%
Louisiana	5.3	5.3	4.3	4.4	4.6	4.5	4.0	4.2	4.1	-22.6%
Maryland	3.6	4.2	3.8	3.5	3.5	3.7	3.7	3.7	3.5	-2.8%
Mississippi	6.4	6.6	6.0	4.9	5.2	5.8	5.4	5.3	4.6	-28.1%
Missouri	4.0	4.2	4.2	3.9	4.2	3.5	4.0	3.8	3.9	-2.5%
North Carolina	5.2	4.8	4.5	4.3	4.2	4.5	4.2	4.0	3.9	-25.0%
Oklahoma	5.3	4.5	4.6	4.7	4.9	4.1	3.9	4.0	4.2	-20.8%
South Carolina	6.2	5.8	4.7	5.2	5.4	5.2	4.9	4.2	4.4	-29.0%
Tennessee	4.3	4.5	4.4	3.7	4.0	4.4	3.9	3.8	4.1	-4.7%
Texas	4.5	4.3	4.0	4.0	3.9	4.2	3.9	3.6	3.5	-22.2%
Virginia	4.1	3.9	3.8	3.5	3.5	3.6	3.5	3.4	3.6	-12.2%
West Virginia	4.8	4.7	3.8	4.2	4.2	3.9	3.9	3.4	3.6	-25.0%
United States	4.3	4.2	4.1	3.9	3.8	3.9	3.8	3.7	3.6	-16.3%

TABLE 4.17B

Postneonatal Mortality Rates, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	3.4	3.6	3.8	3.4	2.9	3.4	2.7	3.4	2.9	-14.7%
Arkansas	4.9	4.2	3.8	3.7	3.2	3.5	3.5	4.2	3.6	-26.5%
Delaware	—	—	—	—	—	—	—	—	—	—
District of Columbia	—	—	—	—	—	—	—	—	—	—
Florida	3.7	3.8	3.5	3.3	2.9	3.5	2.8	3.2	2.8	-24.3%
Georgia	3.6	3.5	3.3	3.7	3.1	3.1	3.3	2.9	2.9	-19.4%
Kentucky	4.0	3.5	4.2	4.2	4.0	3.3	4.0	3.5	3.3	-17.5%
Louisiana	3.3	3.7	3.2	3.2	3.1	3.2	3.0	2.7	2.7	-18.2%
Maryland	3.0	3.2	3.1	2.9	2.6	2.9	3.1	3.0	3.0	0.0%
Mississippi	3.2	3.8	3.4	3.5	3.5	3.7	3.0	3.7	2.9	-9.4%
Missouri	3.2	3.7	3.7	3.5	3.5	3.1	3.5	3.2	3.3	3.1%
North Carolina	3.8	3.2	3.7	3.6	3.6	3.5	3.2	3.3	3.0	-21.1%
Oklahoma	4.7	3.8	4.4	4.4	4.9	3.9	3.9	4.0	4.1	-12.8%
South Carolina	3.9	3.6	3.2	4.3	3.8	4.2	3.3	3.0	3.2	-17.9%
Tennessee	4.0	3.9	3.8	3.2	3.5	3.7	3.4	3.4	3.1	-22.5%
Texas	4.0	3.7	3.6	3.7	3.5	4.0	3.6	3.3	3.2	-20.0%
Virginia	3.5	3.2	3.5	3.1	3.1	3.2	2.8	2.8	3.0	-14.3%
West Virginia	4.8	4.6	3.6	4.1	4.3	3.8	3.8	3.3	3.5	-27.1%
United States	3.6	3.5	3.5	3.4	3.3	3.3	3.3	3.2	3.1	-13.9%

TABLE 4.17C

Postneonatal Mortality Rates, Black, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	8.5	7.5	8.0	6.7	7.5	7.6	7.0	6.0	6.7	-21.2%
Arkansas	8.8	9.0	8.7	8.7	7.9	7.7	6.0	5.7	8.0	-9.1%
Delaware	—	—	—	—	—	—	—	—	—	—
District of Columbia	8.0	5.6	7.3	6.6	5.9	6.2	5.5	5.5	5.6	-30.0%
Florida	7.9	8.4	8.4	7.6	6.5	7.7	7.5	6.1	6.5	-17.7%
Georgia	6.9	8.0	7.9	7.2	6.5	6.6	5.9	6.3	5.9	-14.5%
Kentucky	7.6	6.3	7.0	8.4	5.4	4.4	—	6.3	—	—
Louisiana	8.5	7.8	6.1	6.6	7.3	6.9	5.8	6.4	6.3	-25.9%
Maryland	5.2	6.4	5.6	5.1	5.6	5.3	5.2	5.3	4.7	-9.6%
Mississippi	9.7	9.2	9.1	6.4	7.1	8.2	8.0	7.0	6.6	-32.0%
Missouri	8.8	7.0	7.8	6.6	8.0	5.8	6.8	6.8	7.0	-20.5%
North Carolina	8.4	8.4	6.3	6.2	5.4	6.9	7.0	5.7	6.0	-28.6%
Oklahoma	9.2	8.2	7.5	8.2	6.0	5.5	5.6	6.4	7.1	-22.8%
South Carolina	9.6	9.1	7.2	6.8	7.8	6.8	7.6	6.2	6.3	-34.4%
Tennessee	5.8	6.5	6.5	5.7	6.2	6.9	5.4	5.4	7.2	24.1%
Texas	7.0	7.8	6.4	5.6	6.3	5.7	6.1	6.0	5.9	-15.7%
Virginia	6.1	6.0	5.1	4.8	5.1	5.2	6.0	5.5	5.5	-9.8%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	7.6	7.5	7.3	6.6	6.5	6.8	6.2	6.1	6.3	-17.1%

TABLE 4.17D

Postneonatal Mortality Rates, Nonwhite, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	8.4	7.4	7.9	6.8	7.4	7.4	6.8	6.0	6.5	-22.6%
Arkansas	8.6	8.8	9.4	8.3	7.5	7.4	5.7	5.6	7.7	-10.5%
Delaware	—	—	—	—	—	—	—	—	—	—
District of Columbia	7.9	5.5	7.2	6.5	6.0	6.2	5.6	5.3	5.4	-31.6%
Florida	7.6	8.1	8.1	7.4	6.3	7.3	7.2	5.9	6.3	-17.1%
Georgia	7.7	7.8	7.8	7.1	6.4	6.6	5.7	6.2	5.8	-24.7%
Kentucky	5.4	6.6	7.8	—	5.4	6.6	—	6.0	—	—
Louisiana	8.4	7.6	6.1	6.4	7.0	6.7	5.6	6.3	6.1	-27.4%
Maryland	5.1	6.1	5.2	4.7	5.3	5.1	4.9	5.0	4.3	-15.7%
Mississippi	9.6	9.1	8.9	6.4	7.2	8.1	8.0	7.0	6.6	-31.3%
Missouri	8.5	6.7	7.5	6.2	7.7	5.6	6.3	6.3	5.6	-22.4%
North Carolina	8.0	8.2	6.1	6.0	5.4	6.6	6.7	5.5	5.8	-27.5%
Oklahoma	7.5	7.4	5.6	5.8	4.8	4.4	4.1	4.1	4.7	-37.3%
South Carolina	9.4	8.9	7.1	6.7	7.7	6.7	7.4	6.1	6.2	-34.0%
Tennessee	5.7	5.6	6.3	5.5	6.0	6.9	5.3	5.2	7.2	26.3%
Texas	6.6	7.5	6.0	5.4	5.7	5.3	5.7	5.5	5.4	-18.2%
Virginia	5.6	5.6	4.7	4.5	4.7	4.7	5.5	5.2	5.2	-7.1%
West Virginia	—	—	—	—	—	—	—	—	—	—
United States	7.1	6.9	6.6	6.0	6.0	6.0	5.8	5.5	5.6	-21.1%

TABLE 4.18A

Percentage of Infants Born at Low Birthweight, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	8.4	8.0	7.9	7.9	7.9	7.9	7.9	8.0	8.0	-4.8%
Arkansas	7.9	7.1	7.6	7.4	7.4	7.8	7.5	8.0	7.6	-3.8%
Delaware	7.2	7.6	7.7	7.8	7.3	7.2	7.4	7.3	7.4	2.8%
District of Columbia	13.1	12.7	12.8	13.3	13.4	13.1	12.5	13.3	12.2	-6.9%
Florida	7.8	7.8	7.6	7.4	7.5	7.4	7.4	7.5	7.6	-2.6%
Georgia	8.7	8.6	8.6	8.5	8.5	8.4	8.3	8.1	8.1	-6.9%
Kentucky	7.1	7.0	6.8	7.0	6.9	6.9	6.9	7.0	7.1	0.0%
Louisiana	8.9	8.2	8.6	8.5	8.4	8.6	8.5	8.7	8.6	-3.4%
Maryland	7.8	7.7	8.2	7.7	7.4	7.7	7.4	7.6	7.7	-1.3%
Mississippi	8.8	8.7	8.7	8.6	8.8	8.8	8.7	8.8	8.7	-1.1%
Missouri	7.0	6.7	6.6	6.7	6.6	6.7	6.7	6.7	6.8	-2.9%
North Carolina	8.1	8.1	7.9	7.9	8.0	7.8	7.8	7.9	7.9	-2.5%
Oklahoma	7.1	6.5	6.8	6.6	6.8	6.7	6.3	6.4	6.5	-8.5%
South Carolina	8.9	8.8	8.6	8.9	8.9	8.6	8.8	8.6	8.6	-3.4%
Tennessee	8.1	7.9	8.0	8.0	7.9	8.0	7.9	7.9	7.9	-2.5%
Texas	7.3	7.0	6.9	6.9	6.9	6.9	6.8	6.8	6.8	-6.9%
Virginia	7.4	7.5	7.5	7.3	7.2	7.2	7.2	7.0	7.0	-5.4%
West Virginia	6.8	6.8	6.7	7.1	6.7	6.7	6.9	6.9	7.0	2.9%
United States	7.1	6.9	6.8	6.8	6.8	6.8	6.7	6.8	6.8	-4.2%

TABLE 4.18B

Percentage of Infants Born at Low Birthweight, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	6.2	5.8	5.6	5.8	5.7	6.0	5.7	6.0	6.0	-3.2%
Arkansas	6.1	5.7	5.9	5.8	5.8	6.1	6.0	6.6	6.3	3.3%
Delaware	5.4	5.9	5.4	5.5	5.7	5.3	6.1	5.7	6.0	11.1%
District of Columbia	6.7	5.8	6.3	5.8	5.8	6.7	5.1	5.2	5.0	-25.4%
Florida	6.2	6.1	6.0	5.9	5.9	5.9	6.0	6.0	6.0	-3.2%
Georgia	6.1	6.3	6.4	6.0	6.1	6.1	5.9	6.1	6.0	-1.6%
Kentucky	6.4	6.5	6.3	6.6	6.5	6.4	6.4	6.5	6.5	1.6%
Louisiana	6.3	6.0	6.0	5.9	5.8	5.8	5.7	5.9	5.8	-7.9%
Maryland	5.9	5.8	6.1	5.8	5.4	5.5	5.4	5.4	5.5	-6.8%
Mississippi	6.0	5.7	5.8	5.6	6.0	5.9	6.0	5.9	6.0	0.0%
Missouri	5.8	5.6	5.6	5.7	5.5	5.5	5.6	5.6	5.7	-1.7%
North Carolina	6.3	6.2	6.1	6.0	6.0	5.9	6.1	6.0	6.1	-3.2%
Oklahoma	6.4	6.0	6.2	6.2	6.3	6.1	5.8	5.9	5.9	-7.8%
South Carolina	6.0	6.2	5.9	6.2	6.2	6.1	6.2	5.9	6.1	1.7%
Tennessee	6.7	6.5	6.4	6.4	6.4	6.5	6.4	6.4	6.5	-3.0%
Texas	6.2	6.1	6.0	6.0	6.0	6.0	6.0	5.9	5.9	-4.8%
Virginia	5.9	6.0	5.8	5.8	5.6	5.7	5.7	5.5	5.6	-5.1%
West Virginia	6.6	6.5	6.4	6.9	6.6	6.5	6.6	6.7	6.8	3.0%
United States	5.9	5.8	5.7	5.7	5.6	5.7	5.6	5.6	5.6	-5.1%

TABLE 4.18C

Percentage of Infants Born at Low Birthweight, Black, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	12.4	11.8	12.0	11.8	11.9	11.6	12.1	12.0	11.9	-4.0%
Arkansas	13.0	11.3	12.7	12.3	12.3	13.1	12.3	12.5	12.0	-7.7%
Delaware	13.1	13.0	15.6	14.9	12.6	12.7	11.8	12.9	12.1	-7.6%
District of Columbia	14.3	14.0	14.0	14.9	15.1	14.6	14.2	15.3	14.2	-0.7%
Florida	12.3	12.4	12.2	11.9	11.9	12.0	11.9	12.4	12.7	3.3%
Georgia	13.3	12.6	12.4	12.8	12.7	12.7	12.6	11.7	12.1	-9.0%
Kentucky	13.1	12.3	11.9	11.5	11.3	12.3	12.0	12.2	12.5	-4.6%
Louisiana	12.8	12.6	12.8	12.8	12.8	13.4	13.1	13.1	12.9	0.8%
Maryland	12.4	12.0	13.0	12.1	12.1	12.7	12.0	12.5	12.6	1.6%
Mississippi	11.8	12.0	11.8	11.8	12.0	12.0	11.7	12.2	11.7	-0.9%
Missouri	13.4	12.6	12.9	12.5	12.6	13.1	12.6	12.9	12.6	-6.0%
North Carolina	12.2	12.5	12.2	12.1	12.4	12.4	12.2	12.7	12.2	0.0%
Oklahoma	13.1	11.8	12.3	11.3	12.6	11.9	11.5	12.0	11.4	-13.0%
South Carolina	13.2	12.7	12.6	12.8	13.0	12.6	12.7	13.0	12.4	-6.1%
Tennessee	13.3	12.7	13.6	13.7	13.2	13.3	13.2	12.9	12.6	-5.3%
Texas	13.1	12.6	12.4	12.8	12.2	12.6	12.2	12.2	12.3	-6.1%
Virginia	12.0	11.8	12.3	12.0	12.2	12.1	12.0	11.5	11.3	-5.8%
West Virginia	11.9	13.1	12.3	11.7	10.0	11.1	13.4	11.7	11.8	-0.8%
United States	12.9	12.6	12.5	12.5	12.4	12.6	12.4	12.4	12.5	-3.1%

TABLE 4.18D

Percentage of Infants Born at Low Birthweight, Nonwhite, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	12.3	11.8	11.9	11.8	11.8	11.6	12.0	12.0	11.8	-4.1%
Arkansas	12.8	11.1	12.5	12.1	12.0	12.8	12.0	12.4	11.7	-8.6%
Delaware	12.8	12.7	15.1	14.6	12.6	12.5	11.4	12.5	11.7	-8.6%
District of Columbia	14.2	14.0	13.9	14.8	15.1	14.5	14.2	15.0	13.6	-4.2%
Florida	12.0	12.1	11.9	11.7	11.7	11.8	11.6	12.1	12.4	3.3%
Georgia	13.1	12.4	12.3	12.7	12.5	12.6	12.5	11.6	11.9	-9.2%
Kentucky	12.7	11.6	11.5	11.3	10.8	11.6	11.1	11.8	12.1	-4.7%
Louisiana	12.7	11.6	12.6	12.6	12.5	13.1	12.8	12.8	12.6	-0.8%
Maryland	12.0	11.7	12.6	11.7	11.6	12.1	11.6	12.0	12.0	0.0%
Mississippi	11.7	11.8	11.7	11.7	12.0	11.9	11.6	12.1	11.6	-0.9%
Missouri	13.0	12.3	12.3	12.2	12.2	12.7	12.3	12.4	12.2	-6.2%
North Carolina	11.8	12.1	11.8	11.8	12.1	12.1	11.7	12.2	11.8	0.0%
Oklahoma	9.7	8.7	8.8	8.4	8.9	8.9	8.3	8.5	8.5	-12.4%
South Carolina	13.0	12.6	12.4	12.7	12.8	12.4	12.6	12.8	12.3	-5.4%
Tennessee	13.1	12.5	13.4	13.4	13.0	13.0	13.0	12.7	12.4	-5.3%
Texas	12.7	12.2	11.8	12.1	11.5	11.9	11.5	11.4	11.6	-8.7%
Virginia	11.6	11.4	12.0	11.5	11.7	11.5	11.4	10.9	10.9	-6.0%
West Virginia	11.4	12.4	11.9	11.1	10.0	10.8	12.8	11.0	11.3	-0.9%
United States	11.9	11.6	11.4	11.4	11.2	11.4	11.1	11.1	11.2	-5.9%

TABLE 4.19A

Percentage of Infants Born to Women Receiving Early Prenatal Care, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	71.2	70.9	71.7	72.3	72.5	73.2	73.6	73.2	73.2	2.8%
Arkansas	68.5	69.8	70.1	70.1	68.9	68.1	68.9	69.0	69.5	1.5%
Delaware	75.2	74.5	78.6	78.6	78.2	76.6	78.0	77.8	78.2	4.0%
District of Columbia	58.1	62.7	67.5	65.6	61.4	59.0	60.3	59.4	59.3	2.1%
Florida	69.8	69.2	69.3	69.3	67.9	68.2	67.7	67.9	68.4	-2.0%
Georgia	71.5	73.2	74.5	74.0	73.0	75.2	75.8	74.8	73.5	2.8%
Kentucky	69.6	70.7	72.1	73.9	74.9	75.0	75.6	76.2	75.6	8.6%
Louisiana	75.1	76.3	78.1	77.8	77.3	78.3	77.6	78.3	78.6	4.7%
Maryland	81.2	79.6	80.9	79.5	78.7	78.5	79.3	80.0	80.3	-1.1%
Mississippi	72.1	73.6	74.8	74.4	74.1	74.6	74.8	75.0	76.0	5.4%
Missouri	75.2	78.5	79.3	78.9	79.1	79.2	79.9	80.3	80.0	6.4%
North Carolina	74.4	75.9	76.6	76.7	77.5	77.8	78.2	77.9	77.7	4.4%
Oklahoma	68.8	68.2	68.0	68.1	67.6	67.4	69.4	70.6	71.5	3.9%
South Carolina	70.4	70.2	70.5	68.4	66.9	66.5	67.6	68.3	67.3	-4.4%
Tennessee	72.4	74.1	74.4	74.3	73.8	74.7	75.7	75.1	75.2	3.9%
Texas	70.9	71.9	69.1	68.4	68.1	67.7	68.1	67.6	66.8	-5.8%
Virginia	81.0	81.7	81.2	81.3	80.9	80.6	80.3	79.8	80.1	-1.1%
West Virginia	65.1	66.8	69.0	69.8	70.5	72.0	71.2	71.5	70.6	8.5%
United States	74.9	75.9	76.3	76.4	76.1	76.2	76.5	76.2	75.9	1.3%

TABLE 4.19B

Percentage of Infants Born to Women Receiving Early Prenatal Care, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	80.1	80.0	80.0	80.9	81.2	81.3	81.5	81.0	80.6	0.6%
Arkansas	74.3	75.3	75.3	75.1	74.4	73.9	73.8	74.2	74.6	0.4%
Delaware	80.3	79.2	82.5	82.5	82.6	82.1	81.9	82.6	83.0	3.4%
District of Columbia	70.9	74.6	78.5	78.9	76.0	76.0	75.7	78.9	79.3	11.9%
Florida	75.8	75.0	75.2	75.2	73.7	74.1	73.3	73.9	74.1	-2.2%
Georgia	79.3	80.4	81.7	81.2	80.7	81.8	82.6	81.2	80.2	1.1%
Kentucky	71.7	73.1	74.1	75.6	76.6	76.6	77.2	77.6	77.0	7.4%
Louisiana	85.0	85.3	85.3	85.2	85.2	85.9	85.8	85.2	85.9	1.1%
Maryland	85.5	84.3	85.4	84.7	84.2	84.3	85.4	86.0	86.4	1.1%
Mississippi	83.3	84.3	85.3	84.6	85.0	85.1	85.3	85.3	84.9	1.9%
Missouri	80.4	80.7	81.4	81.2	81.2	81.7	82.3	82.6	82.3	2.4%
North Carolina	81.7	83.0	83.2	83.3	83.7	83.9	84.0	83.6	83.9	2.7%
Oklahoma	72.6	71.8	72.0	72.3	71.5	71.6	73.6	74.2	75.6	4.1%
South Carolina	79.4	79.2	79.5	77.7	75.7	76.0	76.7	77.4	76.5	-3.7%
Tennessee	76.3	77.6	77.7	77.8	77.5	78.3	79.5	78.6	78.7	3.2%
Texas	73.1	73.9	70.9	70.1	69.8	69.3	69.6	69.2	68.4	-6.4%
Virginia	83.8	84.5	84.1	84.3	84.3	84.4	84.4	83.9	84.3	0.6%
West Virginia	65.7	67.4	69.6	70.5	71.3	72.7	71.9	72.2	71.3	8.5%
United States	78.2	79.1	79.3	79.4	79.3	79.4	79.6	79.4	79.2	1.3%

TABLE 4.19C

Percentage of Infants Born to Women Receiving Early Prenatal Care, Black, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	54.7	54.6	56.7	56.5	56.5	58.0	58.8	58.1	59.0	7.9%
Arkansas	51.4	53.6	54.7	55.0	51.6	49.6	53.2	52.0	52.7	2.5%
Delaware	59.0	59.1	66.0	66.2	63.1	59.9	64.3	61.6	63.0	6.8%
District of Columbia	55.5	60.2	65.5	62.7	57.9	54.9	56.7	55.4	56.0	0.9%
Florida	53.4	52.6	52.4	52.3	50.9	50.8	50.1	49.1	50.5	-5.4%
Georgia	58.3	60.6	62.1	61.5	59.6	63.1	63.2	62.9	61.1	4.8%
Kentucky	51.0	49.1	54.0	58.2	60.2	60.2	61.1	62.6	62.9	23.3%
Louisiana	60.6	62.5	66.2	66.0	64.4	66.5	64.8	67.6	67.6	11.6%
Maryland	70.8	69.0	70.5	67.7	66.3	65.1	65.2	66.7	66.9	-5.5%
Mississippi	60.4	62.4	63.5	63.6	62.1	63.2	63.5	63.3	65.9	9.1%
Missouri	66.9	67.0	67.7	67.1	67.5	66.0	67.1	68.3	67.9	1.5%
North Carolina	58.5	60.6	62.0	62.3	63.8	64.0	64.8	64.7	63.5	8.6%
Oklahoma	53.5	52.6	51.5	51.6	49.2	48.4	51.4	55.7	56.8	6.2%
South Carolina	57.5	56.8	57.2	54.6	53.6	51.9	53.5	53.5	53.0	-7.8%
Tennessee	59.3	62.7	63.7	62.4	61.0	62.1	62.7	63.5	64.0	7.9%
Texas	58.2	60.3	58.4	58.1	57.3	57.4	58.2	57.1	56.4	-3.1%
Virginia	72.4	73.6	73.0	72.5	70.9	69.2	68.0	67.7	68.1	-5.9%
West Virginia	52.2	52.6	54.6	52.0	54.5	54.3	53.9	55.9	54.2	3.8%
United States	60.2	61.6	62.7	62.4	61.5	61.5	62.2	61.8	61.6	2.3%

TABLE 4.19D

Percentage of Infants Born to Women Receiving Early Prenatal Care, Nonwhite, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	54.9	54.8	56.8	56.7	56.7	58.2	59.0	58.4	59.3	8.0%
Arkansas	51.8	54.2	55.1	55.4	52.3	50.5	53.8	52.5	53.3	2.9%
Delaware	59.9	59.8	66.0	67.0	63.6	60.6	65.4	62.7	63.8	6.5%
District of Columbia	55.5	60.4	65.6	62.8	58.0	55.0	56.8	55.0	55.4	-0.2%
Florida	54.1	53.4	53.0	53.1	51.7	51.6	51.1	50.1	51.6	-4.6%
Georgia	58.5	60.9	62.4	61.8	58.7	63.4	63.6	63.2	61.5	5.1%
Kentucky	51.9	50.1	54.8	58.9	60.5	60.7	61.5	62.8	63.5	22.4%
Louisiana	60.5	62.4	66.3	66.0	64.5	66.5	65.1	68.0	68.1	12.6%
Maryland	71.5	69.8	71.2	68.6	67.4	66.5	66.7	67.8	68.2	-4.6%
Mississippi	60.4	62.5	63.5	63.6	62.2	63.3	63.5	63.4	66.0	9.3%
Missouri	67.2	67.3	68.2	67.5	68.0	66.6	67.7	68.9	68.4	1.8%
North Carolina	59.3	61.3	62.6	63.1	64.5	64.6	65.3	65.3	64.1	8.1%
Oklahoma	53.3	53.9	52.8	51.6	51.7	50.9	53.3	57.0	57.3	7.5%
South Carolina	57.8	57.1	57.5	54.9	53.6	52.2	53.7	53.9	53.3	-7.8%
Tennessee	59.5	62.8	63.8	62.6	61.3	62.3	63.0	63.8	64.3	8.1%
Texas	59.4	61.4	59.5	59.3	59.0	59.1	60.0	59.0	58.4	-1.7%
Virginia	73.0	74.1	73.4	72.9	71.3	70.0	69.0	68.5	68.9	-5.6%
West Virginia	52.2	53.8	55.4	53.5	55.7	56.1	56.0	57.9	55.6	6.5%
United States	61.4	62.9	63.8	63.8	63.2	63.4	64.1	63.7	63.7	3.8%

TABLE 4.20A

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, All Races, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	6.1	6.3	6.5	6.3	6.4	6.1	5.9	6.2	6.5	6.6%
Arkansas	6.8	6.3	6.3	6.6	7.1	7.4	7.9	7.4	6.9	1.5%
Delaware	5.0	4.5	4.4	3.8	3.9	4.6	3.7	4.3	3.9	-22.0%
District of Columbia	14.6	8.0	7.1	7.4	7.8	11.1	10.0	11.4	11.4	-21.9%
Florida	6.2	7.0	7.3	7.6	8.7	8.5	8.9	9.0	8.6	38.7%
Georgia	6.7	6.0	5.2	5.7	5.8	5.4	5.1	5.3	6.4	-4.5%
Kentucky	7.9	7.5	6.9	4.9	5.3	5.4	5.3	5.1	4.9	-38.0%
Louisiana	5.4	5.0	4.9	4.9	4.5	4.3	4.8	4.9	4.7	-13.0%
Maryland	2.9	3.6	3.3	3.9	3.9	4.3	4.0	4.1	4.0	37.9%
Mississippi	5.2	4.5	4.4	4.6	4.5	4.6	4.4	4.3	4.1	-21.2%
Missouri	4.0	4.0	3.8	4.2	4.4	4.4	4.0	4.0	4.3	7.5%
North Carolina	4.5	4.2	4.2	4.1	3.9	4.0	3.9	4.2	4.6	2.2%
Oklahoma	8.1	8.6	8.6	8.2	9.5	9.2	8.5	7.3	7.3	-9.9%
South Carolina	5.8	6.0	6.2	6.7	7.5	8.0	7.7	8.0	8.1	39.7%
Tennessee	5.9	5.3	5.4	5.4	5.9	5.7	5.3	5.5	5.5	-6.8%
Texas	8.6	8.1	9.1	9.5	9.9	10.4	10.6	11.0	11.5	33.7%
Virginia	3.6	3.4	3.6	3.5	3.6	3.7	3.8	4.0	4.0	11.1%
West Virginia	6.9	6.3	6.3	6.1	6.1	6.0	6.3	6.1	6.9	0.0%
United States	5.4	5.1	5.1	5.2	5.5	5.6	5.6	5.7	6.0	11.1%

TABLE 4.20B

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, White, 1978–1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978–1986
Alabama	4.2	4.2	4.5	4.2	4.3	4.0	3.9	4.3	4.8	14.3%
Arkansas	5.3	4.9	5.0	5.3	5.6	5.9	6.4	5.6	5.4	1.9%
Delaware	3.9	3.9	3.7	3.0	3.0	3.1	2.8	3.1	2.7	-30.8%
District of Columbia	10.9	7.0	4.6	5.7	5.2	5.8	5.0	5.4	4.9	-55.1%
Florida	5.1	5.7	6.1	6.2	7.0	6.8	7.2	7.1	6.9	35.3%
Georgia	5.1	4.3	3.9	4.0	3.9	3.9	3.8	3.9	4.8	-5.9%
Kentucky	7.0	6.1	5.9	4.9	4.8	5.0	4.9	4.6	4.5	-35.7%
Louisiana	3.3	3.1	3.0	2.9	2.9	2.6	2.8	3.0	2.8	-15.2%
Maryland	2.3	2.6	2.3	2.7	2.7	2.9	2.5	2.6	2.3	0.0%
Mississippi	3.0	2.6	2.6	2.7	2.4	2.5	2.4	2.4	2.5	-16.7%
Missouri	3.8	3.5	3.4	3.6	3.9	3.8	3.4	3.4	3.6	-5.3%
North Carolina	2.9	2.7	2.7	2.7	2.6	2.5	2.5	2.7	2.8	-3.5%
Oklahoma	6.5	7.0	7.0	6.6	7.8	7.5	6.9	6.0	5.9	-9.2%
South Carolina	3.8	3.9	4.1	4.5	5.0	5.1	4.6	4.8	5.1	34.2%
Tennessee	5.1	4.6	4.6	4.5	5.0	4.7	4.2	4.4	4.5	-11.8%
Texas	8.2	7.8	8.7	9.1	9.6	10.0	10.3	10.6	11.1	35.4%
Virginia	3.0	3.0	3.2	2.9	3.0	2.9	2.9	3.0	3.1	3.3%
West Virginia	6.7	6.0	6.1	5.9	5.9	5.8	6.1	5.9	6.5	-3.0%
United States	4.5	4.3	4.3	4.3	4.5	4.6	4.7	4.7	5.0	11.1%

TABLE 4.20C

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Black, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978-1986
Alabama	9.7	9.9	10.2	10.0	10.3	10.0	9.5	9.8	9.9	2.1%
Arkansas	11.3	10.3	10.1	10.4	11.6	11.8	12.7	13.2	12.0	6.2%
Delaware	8.3	6.2	6.5	6.2	6.8	9.2	6.7	8.3	7.6	-8.4%
District of Columbia	15.5	8.3	7.6	8.4	8.5	12.5	11.4	12.5	12.6	-18.7%
Florida	9.1	10.7	10.9	11.7	13.7	13.4	14.3	14.8	14.1	55.0%
Georgia	9.4	8.8	7.5	8.8	9.3	8.2	7.5	8.0	9.2	-2.1%
Kentucky	15.9	20.0	16.2	10.7	9.7	9.4	10.0	9.5	8.4	-47.2%
Louisiana	8.5	7.6	7.9	8.0	7.1	6.7	7.8	7.9	7.5	-11.8%
Maryland	4.6	5.8	5.5	6.6	6.5	7.7	7.3	7.5	7.6	65.2%
Mississippi	7.3	6.3	6.3	6.5	6.8	6.8	6.4	6.4	5.8	-20.6%
Missouri	6.2	6.5	6.1	7.1	7.3	7.9	7.3	7.3	8.0	29.0%
North Carolina	8.3	7.6	7.6	7.4	6.7	7.4	7.2	7.8	8.6	3.6%
Oklahoma	12.9	14.5	14.0	13.5	17.0	17.1	15.4	12.7	13.1	1.6%
South Carolina	8.7	9.1	9.3	10.1	11.4	12.5	12.5	13.1	12.8	47.1%
Tennessee	8.5	7.6	7.8	8.1	8.9	8.9	8.9	8.9	8.6	1.2%
Texas	10.8	10.0	11.0	11.7	12.4	12.5	12.7	13.9	14.0	29.6%
Virginia	5.4	4.7	5.0	5.2	5.6	6.2	6.2	6.9	6.7	24.1%
West Virginia	12.2	12.7	12.0	13.1	12.3	12.1	12.2	12.6	15.3	25.4%
United States	9.3	8.9	8.8	9.1	9.6	9.7	9.6	10.0	10.6	14.0%

TABLE 4.20D

Percentage of Infants Born to Women Receiving Late or No Prenatal Care, Nonwhite, 1978-1986

State	1978	1979	1980	1981	1982	1983	1984	1985	1986	Percent Change 1978-1986
Alabama	9.6	9.9	10.1	10.0	10.3	10.0	9.5	9.7	9.8	2.1%
Arkansas	8.4	11.6	10.1	10.4	11.6	11.9	12.5	13.2	11.8	40.5%
Delaware	8.2	6.1	6.4	6.0	6.8	8.9	6.6	8.0	7.4	-9.8%
District of Columbia	15.4	8.2	7.5	8.4	8.4	12.4	11.2	12.8	12.7	-17.5%
Florida	9.1	10.5	10.8	11.5	13.5	13.2	14.0	14.6	13.8	51.7%
Georgia	9.4	8.8	7.5	8.7	9.0	8.2	7.5	7.9	9.1	-3.2%
Kentucky	15.5	19.3	15.6	10.8	9.6	9.2	9.7	9.6	8.2	-47.1%
Louisiana	8.7	7.8	7.9	8.1	7.2	6.9	7.8	7.8	7.4	-14.9%
Maryland	4.5	5.8	5.4	6.4	6.3	7.4	7.0	7.3	7.3	62.2%
Mississippi	7.4	6.4	6.3	6.5	6.8	6.8	6.5	6.4	5.8	-21.6%
Missouri	6.2	6.5	6.0	7.0	7.3	7.7	7.1	7.1	7.9	27.4%
North Carolina	8.0	7.4	7.4	7.2	6.5	7.2	7.0	7.5	8.4	5.0%
Oklahoma	14.4	14.7	14.7	14.6	16.0	15.6	14.6	12.6	12.3	-14.6%
South Carolina	8.6	9.1	9.3	10.1	11.3	12.4	12.4	12.9	12.6	46.5%
Tennessee	8.6	7.7	8.0	8.2	9.0	9.0	8.8	8.9	8.5	-1.2%
Texas	10.6	9.7	10.8	11.5	12.1	12.1	12.2	13.4	13.4	26.4%
Virginia	5.2	4.7	5.0	5.1	5.5	6.1	6.1	6.7	6.5	25.0%
West Virginia	12.0	12.0	11.6	12.1	11.5	11.6	11.2	11.7	14.4	20.0%
United States	9.1	8.7	8.8	8.9	9.3	9.4	9.3	9.5	9.9	8.8%

Technical Notes

This book focuses on the southern region as defined by the Southern Governors' Association (SGA). The member states of the SGA are: Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Unless otherwise stated, the other regions used in this book are defined as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

These divisions correspond to the standard regional breakdown used by the U.S. Bureau of the Census and other data sources with one exception—Missouri usually is considered a midwestern state. However, because Missouri is a member the Southern Governors' Association, regional data in this book include Missouri in the South wherever possible.

Since data are not available by state in all cases, some regional data are presented that include Missouri in the Midwest. These include data on: risk of death (National Infant Mortality Surveillance Project), child population and poverty (Bureau of the Census), and health status and health utilization (National Health Interview Survey). Regional data that include Missouri in the Midwest grouping are noted.

Demographic Data

All population and poverty data included in this book are estimates for 1987 based on the March 1988 Current Population Survey (CPS), except state-by-state child poverty data in the state pages and Table 4.14e. The data used in this book were published in *Poverty in the United States: 1987* (Bureau of the Census, Current Population Reports, Series P-60, No. 163, Washington: Government Printing Office, 1989). The CPS is a household sample survey of the civilian noninstitutional population conducted every month by the Bureau of the Census. It primarily collects labor force participation data. In March of each year, supplemental survey questions about income received the previous calendar year are included in the CPS.

State-by-state child poverty data presented in the state pages and in Table 4.14e are derived from unpublished CPS data. The estimated child poverty rate for 1983-1987 for each state was computed by averaging annual state child poverty rates for those five years.

It is important to note that the poverty level used by the CPS is different than the poverty guidelines issued by the U.S. Department of Health and Human Services to determine eligibility for federal programs such as Medicaid. For 1987 the CPS used a weighted average poverty threshold of $9,056 for a family of three. In comparison, the federal poverty guideline for 1987 was $9,300 for a family of three living in the continental United States.

The child population and child poverty data presented are for "related children" only. "Related children" include all children in a household related by blood, marriage, or adoption to the person who owns or rents the home surveyed. The definition excludes children who do not live with relatives, such as children living in foster care arrangements or in institutions.

National, State, and City Natality and Infant Mortality Data

All of the natality and infant mortality data appearing in this book are from published and unpublished reports of the National Center for Health Statistics (NCHS). These data are provided to NCHS through the Vital Statistics Cooperative Program, through which states report birth and death certificate information. Readers may obtain further details about states' participation in this program from NCHS, U.S. Department of Health and Human Services (3700 East-West Highway, Hyattsville, MD, 20782).

Rankings, rates of progress, and other data analyses were conducted by CDF. In calculating rates and percentages, data were excluded if the total number of events was fewer than 30.

Excess Deaths and Low-Birthweight Births

The excess deaths statistics presented in this book are based on comparisons of regional vital statistics. For example, the number of excess infant deaths for the southern region is derived by comparing the southern region's infant mortality rate to that of all other regions and computing the difference. This calculation allows us to answer the question: How many fewer deaths would have occurred if the southern region had an infant mortality rate the same as all other regions combined?

Cause of Death

Data by state for 72 causes of death are published routinely by NCHS. The categories of causes of death used in Table 2.3 are based on broad groupings of specific International Classification of Diseases (ICD-9) listings.

The category "birth trauma, intrauterine hypoxia, birth asphyxia and respiratory distress syndrome" reflects ICD codes 767-769. This category shows the deaths related to complications of labor and delivery and respiratory distress syndrome, a major cause of death for premature infants. "Other conditions originating in the perinatal period" represents ICD codes 760-766 and 770-779. This is a very broad grouping that includes most of the causes of death related to birthweight, maternal causes of perinatal mortality, and congenital infections (not including congenital syphilis or gonorrhea). "Symptoms, signs and ill-defined conditions" is a catch-all category for deaths which have no other classifiable diagnosis (ICD 780-799). The most important cause of death in this category for infants is Sudden Infant Death Syndrome (SIDS). "Congenital anomalies" includes all deaths due to what are commonly referred to as birth defects (ICD 740-759). "Pneumonia and influenza" reflects death due to ICD codes 480-487. This category does not include congenital or aspiration pneumonia among newborns. "Accidents and adverse effects" represents all deaths due to injuries and complications of injuries (ICD E800-E949). It does not include deaths from homicide or legal intervention.

These data represent the best available source of cause of death statistics. However, many researchers have documented problems with misclassification of death. For infants, misclassifications have been reported to be especially common among three major causes of death: SIDS, accidents, and homicide.

Adequacy of Prenatal Care

Adequacy of prenatal care data presented in this book are based on a modified version of the Kessner Index. In 1963, Dr. David Kessner and his colleagues developed this index as part of their landmark study for the Institute of

Medicine entitled *Infant Death: An Analysis by Maternal Risk and Health Care.* While the more common timing of entry into care data are based on the month of pregnancy in which a first visit was made, the Kessner Index cross-tabulates the timing of entry into care with the number of visits recorded and the gestational length of the pregnancy. The index provides a more complete measure of whether an appropriate quantity of care is received. The Kessner Index does not, however, measure the content or quality of care provided.

The modified Kessner Index requires that the first prenatal care visit occur within the first three months of pregnancy and the mother receive at least 10 visits during a full-term pregnancy to be considered adequate. It is important to note that the American College of Obstetricians and Gynecologists recommends 13 visits for a full-term, normal pregnancy. The index also assumes that care is inadequate if it is not begun until the last trimester of pregnancy. Women whose care patterns do not fall into either an "adequate" or "inadequate" category are considered to have received "intermediate" level care.

National Infant Mortality Surveillance Project

The National Infant Mortality Surveillance (NIMS) project was conducted by the Centers for Disease Control to understand better the causes of infant mortality. The project linked birth and death certificates for all infants born in 1980 who died within one year after birth.

Usually, infant mortality is described as a rate—the number of infant deaths divided by the number of births in a given period of time. Since the births and infant deaths during a specified period of time do not correspond to the same infants, the infant mortality rate does not measure an individual infant's chance of death. On the other hand, the NIMS data links birth and death certificates for all infants born in 1980. Consequently, the NIMS data are for a specific birth cohort and measure the true risk of death for infants born in 1980.

NIMS project data used in this book were published in the March-April 1987 issue of *Public Health Reports* (Vol. 102, No. 2, Pages 126-223).

Child Health Status and Health Care Utilization

The Health of America's Southern Children contains findings on the health status and health care utilization patterns of children. The data used in this volume are extracted from various NCHS publications based on the National Health Interview Survey (NHIS). NHIS is an ongoing nationwide household survey based on a probability sample of the civilian noninstitutionalized population. A subset of results is published each year by NCHS in "Current Estimates from the National Health Interview Survey." In addition, special tabulations are published for particular subjects of interest, such as dental health and the use of preventive health care procedures. Data for this book are drawn from NCHS, "Current Estimates from The National Health Interview Survey, United States, 1987," Vital and Health Statistics, Series 10 No. 166 (DHHS Publication No. (PHS) 88-1594) (September 1988); NCHS, "Use of Dental Services and Dental Health, United States, 1986," Vital and Health Statistics, Series 10 No. 165 (DHHS Publication No. (PHS) 88-1593) (October 1988); and NCHS, "Use of Selected Preventive Care Procedures, United States, 1982," Vital and Health Statistics, Series 10 No. 157 (DHHS Publication No. (PHS) 86-1585) (September 1986). In addition, unpublished data from the 1987 HIS are used to present regional comparisons.

Childhood Mortality

Death rates for children ages one to 15 used in this book are from unpublished data furnished by the National Center for Health Statistics. NCHS calculated state child death rates from death certificate data in the Compressed Mortality file. Data for the years 1981-1985 were combined to create a base large enough to allow for calculation of stable rates. Rates were suppressed for those states with fewer than 25 expected deaths. "Expected deaths" are the number of deaths that would have occurred in a state if that state had the same death rate as the U.S. rate for 1981-1985.

Child mortality rates are presented for both "external" and "natural" causes of death. External causes are all "E" code causes as defined by the International Classification of Diseases, such as death as a result of transport accidents, accidental poisoning with medications, accidental falls or suffocation, fire, and homicide/abuse. Accidents are the leading cause of death among children older than one. Natural causes include all disease categories, including leading natural causes of death among children such as cancer, diseases of the heart, pneumonia, and meningitis.

Program Data

Calculations using comparisons with the federal poverty level are based on poverty income guidelines issued by the Department of Health and Human Services in February 1989 (*Federal Register*, Vol. 54 No. 31). The HHS poverty guidelines are used to determine financial eligibility for programs such as Medicaid and WIC. For purposes of this book, the poverty level for a family of three has been selected as a standard of comparison, since many of the families receiving public aid consist of a single parent and two children. A single annual poverty income standard is set for the District of Columbia and the 48 contiguous states. Poverty guidelines for Alaska and for Hawaii are scaled up by 25 and 15 percent, respectively. The annual poverty level for a three-person family in 1989 is $10,060 in the continental United States, $12,580 in Alaska, and $11,570 in Hawaii (monthly levels are $838.33, $1,048.33, and $964.17, respectively).

Aid to Families With Dependent Children

States' AFDC standard of need and payment level data are based on a telephone survey conducted by the Congressional Research Service in January 1989 and published in *Background Materials and Data on Programs Within the Jurisdiction of the Committee on Ways and Means* (U.S. House of Representatives, 101st Congress, Committee on Ways and Means, March 15, 1989). The standard of need is theoretically the minimum amount needed by a family to subsist. In fact, state AFDC standard of need levels are often much lower than subsistence levels. AFDC payment levels represent the maximum payment level available in a state, since many states vary their payment levels by geographic region or in accordance with other factors, such as whether a family rents or owns a home.

Some states may have revised their need standards or payment levels since the CRS survey. However, because states revise welfare eligibility standards throughout the year, we are forced to present the most recent program "snapshot" available.

State AFDC program data are from *Characteristics of State Plans for Aid to Families With Dependent Children Under Title IV-A of the Social Security Act* (Department of Health and Human Services, Family Support Administration, Office of Family Assistance, 1988).

States are ranked based on the relative size of their maximum AFDC payment levels. The states also are ranked for the relative generosity of their AFDC standards of need. While the actual payment level in most states governs families' AFDC and Medicaid eligibility, several states (Colorado, Maine, Michigan, Mississippi, Oklahoma, South Carolina, Tennessee, and Utah) utilize a different method of calculating eligibility that provides at least some AFDC benefits, as well as Medicaid coverage, to families whose incomes exceed AFDC payment levels but are less than the AFDC standard of need. In these states, categorically eligible individuals or families with modest earnings can receive Medicaid as long as their incomes fall below the standard of need, even if they exceed the AFDC payment level.

For example, in Mississippi the maximum 1988 AFDC grant level for a family of three with no income was $120. However, categorically eligible families with incomes above this payment level but below the state's AFDC monthly standard of need ($368) may be financially eligible for Medicaid. Thus, the AFDC payment level for a family of three with no income in Mississippi does not fully reflect that state's Medicaid coverage of poor families.

Special Supplemental Food Program for Women, Infants, and Children (WIC)

Statistics on the federal Special Supplemental Food Program for Women, Infants, and Children (WIC) are from the Center on Budget and Policy Priorities, which uses data from the U.S. Department of Agriculture (USDA) and the U.S. Bureau of the Census. Estimates of the numbers of persons eligible for WIC are from a USDA study, "Estimation for the WIC Program," published in July 1987. This study includes estimates of the number of women, infants, and children in each state who were income-eligible and at nutritional risk (the two eligibility requirements for participation in WIC) in 1979. The income data were derived from data collected in the 1980 Census. The data on nutritional risk came from the 1976-1980 National Health and Nutrition Examination Survey (NHANES-II) and the 1980 National Natality Survey (NNS). While the Census Bureau does not compile state income data annually, it does compile national income data annually, and the USDA study includes a national estimate of the number of women, infants, and children who met WIC's income eligibility requirement in 1984.

To estimate the number of women, infants, and children in each state who were fully eligible (that is, who met the income and nutritional risk criteria) for WIC in 1984, the Center on Budget and Policy Priorities determined the percentage increase in the national number of women, infants, and children who were fully eligible in 1984 as compared with the national number of women, infants, and children who were fully eligible in 1979. That percentage was applied to each state's number of women, infants, and children who were fully eligible in 1979. The estimates of the number of fully eligible women, infants, and children in 1984 by state are approximations, since not all states experienced the same increases in the number of women, infants, and children with incomes less than 185 percent of the poverty line (the maximum WIC eligibility level) between 1979 and 1984 as did the country as a whole. One additional adjustment was made in the projected 1984 eligibility estimates for each state. In the 17 states that operated the Commodity Supplemental Food Program (CSFP) in August 1988, the estimated eligible pool for the WIC program was decreased by the number of persons already participating in CSFP. This is necessary because the two programs serve almost the same population and individuals are not permitted to participate in both programs. Thus, women and children participating in CSFP are not eligible to participate in WIC and should not be counted as part of the eligible population for WIC.

Federal WIC participant data were taken from USDA's "WIC Program, State Agency Participation and Expenditure Report for FY 1988," dated November 23, 1988.

The numbers of women and children served by state WIC programs were derived from a survey of state WIC agencies conducted by the Center on Budget and Policy Priorities in December 1988.

Medicaid

Medicaid eligibility levels for pregnant women, infants, and children presented in this book are based on a telephone survey conducted by the Children's Defense Fund in June 1989. Data on state Early and Periodic, Screening, Diagnosis, and Treatment (EPSDT) program characteristics also were drawn from a Children's Defense Fund survey conducted in the summer of 1989.

Other data on Medicaid and EPSDT are from the Health Care Financing Administration (HCFA). States are required to report various program performance data to HCFA on a regular basis. This book includes data on average annual Medicaid expenditures per dependent child. These figures are Medicaid expenditures for children who qualify for Medicaid as AFDC recipients only as reported by the states to HCFA on "Form 2082." They do not reflect all Medicaid expenditures for children. These data are from the *Medicaid Source Book: Background Data and Analysis* (Congressional Research Service, 100th Congress, Committee on Energy and Commerce, U.S. House of Representatives, November 1988).

In addition, this book presents EPSDT screening ratios for the calendar year 1988. States report these data to HCFA on "Form 420" every quarter. The EPSDT screening ratio is the quotient of the number of screens provided in a state and the average number of EPSDT eligible children. While all children younger than 21 enrolled in Medicaid are eligible for EPSDT, states do not have the capacity to count actual numbers of eligible children, and the number reported is less than even the total number of children who receive Medicaid-covered services in a year. The annual average number of EPSDT eligibles is the simple mean of the four quarterly numbers reported by states on "Form 420."

The screening ratio is an average that does not account for some children receiving more than one screen a year. The screening ratio does not reflect the actual percentage of eligible children screened. It is commonly referred to as a percentage of eligibles screened, nonetheless. The screening ratio for children younger than six in some states is over 100 percent. While performing better than most other states, states with screening ratios over 100 percent have not screened all eligible children, nor have they assured all children the appropriate number of screens.

References

1. David Allen, James Buehler, Carol Hogue, et al., "Regional Differences in Birthweight Specific Infant Mortality, U.S. 1980," *Public Health Reports* 102, No. 2 (March-April 1987), 138-145.

2. Ibid.

3. Institute of Medicine, Committee to Study the Prevention of Low Birthweight, *Preventing Low Birthweight* (Washington: National Academy Press, 1985).

4. National Center for Health Statistics, "Advance Report of Final Natality Statistics, 1987," *Monthly Vital Statistics Report* 38, No. 3, Supplement (June 1989).

5. Department of Health and Human Services, Public Health Service, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (Washington: GPO, 1979).

6. Marian Edelman, "An Advocate's Guide to the Numbers," Children's Defense Fund Adolescent Pregnancy Prevention Clearinghouse Report (Jan. 1988).

7. Andrew Friede, Wendy Baldwin, Philip Rhoades, et. al., "Young Maternal Age and Infant Mortality: The Role of Low Birthweight," *Public Health Reports* 102, No. 2 (March-April 1987), 189-205.

8. John Butler, William Winter, Judith Singer, et al., "Medical Care Use and Expenditure Among Children and Youth in the United States: Analysis of a National Probability Sample," *Pediatrics* 76 (Oct. 1985), 495-507. Paul Newacheck, and Neal Halfon, "Access to Ambulatory Care Services for Economically Disadvantaged Children," *Pediatrics* 78 (Dec. 1985), 813-819.

9. Dana Hughes and Sara Rosenbaum, "An Overview of Maternal and Infant Health Services in Rural America," to be published in *Journal of Rural Health.*

10. Dana Hughes, Kay Johnson, Sara Rosenbaum, and Joseph Liu, *The Health of America's Children: Maternal and Child Health Data Book 1989* (Washington: Children's Defense Fund, 1989).

11. Alan Guttmacher Institute, *Blessed Events and the Bottom Line: Financing Maternity Care in the United States* (New York: Alan Guttmacher Institute, 1987).

12. National Center for Clinical Infant Programs, *Infants Can't Wait* (Washington: National Center for Clinical Infant Programs, 1986)

13. U.S. Congress, Report to accompany the Amendments to the Education for All Handicapped Children Act, Public Law 99-467, 99th Congress, 1986.

CDF Board of Directors

Hillary Rodham Clinton
Chair
Partner, The Rose Law Firm
Little Rock, Arkansas

James A. Joseph
Vice Chair
President, Council on Foundations, Inc.
Washington, D.C.

Donna E. Shalala
Vice Chair
Chancellor, University of Wisconsin
Madison, Wisconsin

Nancy Abraham
Senior Vice President/Investments
Shearson Lehman Hutton
New York, New York

J. LeVonne Chambers
Director, NAACP Legal Defense and Educational Fund
New York, New York

Laura Rockefeller Chasin
Social Worker
Cambridge, Massachusetts

John D. Deardourff
Chairman, Bailey, Deardourff & Associates
Falls Church, Virginia

Thomas R. Draper
Vice President, Community Relations
Warner Communications, Inc.
New York, New York

Marian Wright Edelman
President, Children's Defense Fund
Washington, D.C.

Winifred Green
President, Southern Coalition for Educational Equity
Jackson, Mississippi

Lucy Hackney
Staff Attorney, Juvenile Law Center
Philadelphia, Pennsylvania

Henry E. Hampton
President, Blackside, Inc.
Boston, Massachusetts

Dorothy I. Height
National President, National Council of Negro Women
Washington, D.C.

David W. Hornbeck
Attorney, Hogan & Hartson
Washington, D.C.

Ruby G. Martin
Attorney
Richmond, Virginia

Joseph L. Rauh, Jr.
Civil Rights Attorney
Washington, D.C.

Susan Thomases
Partner, Willkie, Farr & Gallagher
New York, New York

Thomas A. Troyer
Partner, Caplin & Drysdale
Washington, D.C.

Bailus Walker, Jr.
Professor of Environmental Health
State University of New York
Albany, New York

Suzanne S. Weil
Executive Director, Sundance Institute
Sundance, Utah

Eddie N. Williams
President, Joint Center for Political Studies
Washington, D.C.